# The goblin spider genus *Opopaea* in Australia and the Pacific islands (Araneae: Oonopidae)

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#### **ABSTRACT**

The widespread and highly diverse goblin spider genus Opopaea Simon is a pantropical genus with biodiversity hotspots in Africa, Asia and Australia. We revise the Australian and Pacific species of the genus, provide redescriptions of the Australian species O. banksi (Hickman) and the Micronesian species O. foveolata Roewer, and new records of the pantropical O. deserticola Simon and O. concolor (Blackwall), as well as O. apicalis (Simon) which is newly transferred from Epectris, after the new synonymy of Epectris with Opopaea. The following species are provisionally transferred from Epectris to Opopaea, pending investigations into their generic affinities: O. conujaingensis (Xu), new combination from China; and O. mollis (Simon), new combination from Sri Lanka. Most Pacific Islands are inhabited by the four above-mentioned species but the following 15 newly described species are most likely native to the islands: from Fiji (O. fiji), Hawaii (O. hawaii), Palau (O. palau), New Caledonia (O. amieu, O. bicolor, O. burwelli, O. calcaris, O. goloboffi, O. monteithi, O. ndoua, O. platnicki, O. raveni, O. striata, O. touho, O. tuberculata). We treat the Australian Opopaea fauna and recognise 84 species including 71 new and 13 previously described species. The new Australian species include 21 species from New South Wales (O. acuminata, O. addsae, O. bushblitz, O. gerstmeieri, O. lebretoni, O. linea (also occurs in Queensland), O. magna, O. margaretehoffmannae, O. martini, O. michaeli, O. milledgei, O. nitens, O. ottoi, O. plana, O. simplex, O. sturt, O. suelewisae, O. sylvestrella, O. tenuis, O. ursulae, O. yorki); six from Northern Territory (O. ephemera, O. fishriver, O. gilliesi, O. johardingae, O. preecei, O. wongalara); 13 from Queensland (O. ameyi, O. brisbanensis, O. broadwater, O. carnarvon, O. carteri, O. chrisconwayi, O. douglasi, O. lambkinae, O. leichhardti, O. mcleani, O. proserpine, O. stanisici, O. ulrichi); three from South Australia (O. millbrook, O. mundy, O. stevensi); and 28 from Western Australia (O. aculeata, O. aurantiaca, O. billroth, O. callani, O. cowra, O. durranti, O. exoculata, O. flava, O. fragilis, O. framenaui, O. gracilis, O. gracillima, O. harmsi, O. johannae, O. julianneae, O. marangaroo, O. millstream, O. nadineae, O. pallida, O. pannawonica, O. pilbara, O. rixi, O. robusta, O. rugosa, O. subtilis, O. triangularis, O. wheelarra, O. whim). New records are provided for O. sown Baehr. Seven area-based keys to species are provided. 

Opopaea, Australia, Pacific islands.

The goblin spider genus *Opopaea* Simon was one of the first oonopid genera to be described (Simon 1891) and its limits and status changed continually for nearly a century. It was often confused or synonymised with *Gamasomorpha* Karsch until both genera were distinguished and diagnosed using the morphology of the male pedipalps and female genitalia by Brignoli (1974, 1975). The genus is widespread throughout tropical regions of the world, and it is apparent that some species, including the type species *O. deserticola* Simon, are readily distributed and have attained a pantropical distribution (Platnick & Dupérré 2009).

Species of Opopaea have the male palpal patella several times longer than the femur, connected to the femur medially, and the cymbium and bulb are completely fused (e.g. Andriamalala & Hormiga in press; Platnick & Dupérré 2009; Saaristo 2001; Saaristo & Marusik 2008). Other genera with swollen palpal patellae which arise subbasally on the femur, including Camptoscaphiella Caporiacco, Griswold, Ubick and Malagiella Prethopalpus Baehr et al., differ from Opopaea by the presence of legs spines in Camptoscaphiella and Malagiella, and the unfused cymbium and bulb in Camptoscaphiella and Prethopalpus (Baehr & Harvey 2013; Baehr et al. 2012; Baehr & Ubick 2010; Ubick & Griswold 2011).

Opopaca currently contains 83 named species (Andriamalala & Hormiga in press; Platnick 2013), including 42 from Africa and Madagascar, 12 from Australia, 19 from Asia, one from Europe, six from the Americas, and two pantropical species. Some of these species are clearly misplaced in Opopaea (Platnick & Dupérré 2009) and require restudy to establish a more accurate generic affiliation.

The *Opopaea* fauna of the Australian and Pacific region is poorly known, with only a handful of described species. The Australian fauna includes 12 named species, including *O. banksi* (Hickman) from an island off the South Australian coast which was originally described as a species of *Gauasomorpha* (Hickman 1950), the troglobitic *O. ectoguophus* Harvey and Edward and *O. phineus* Harvey and Edward from subterranean

ecosystems in Western Australia (Harvey & Edward 2007), *O. concolor* (Blackwall) as a pantropic species, and eight species from rainforest habitats in Lamington National Park, Queensland (Baehr 2011). The Pacific fauna comprises *O. foveolata* Roewer from Micronesia (Roewer 1963), and the widely distributed *O. deserticola* and *O. concolor* (Blackwall) (Platnick & Dupérré 2009).

The purpose of this study was to continue a review of the Australian and Pacific Oonopidae by redescribing *O. bauksi* and *O. foveolata*, and providing descriptions of 86 new species from the region. Many of these species are short-range endemics with very small distributions (Harvey 2002) and may prove to be important taxa for monitoring the effects of climate change (Baehr 2011). We also suggest that the genus Epectris is a synonym of *Opopaea* due to the close similarity of their respective type species to *Opopaea palau*.

#### MATERIAL AND METHODS

The specimens examined for this study are lodged in the following museums: Australian Museum, Sydney, Australia (AM); American Museum of Natural History, New York, USA (AMNH); Field Museum of Natural History, Chicago, USA (FMNH); Museum and Art Gallery of the Northern Territory, Darwin (MAGNT); Museum of Victoria, Melbourne, Australia (MVMA); Queensland Museum, Brisbane, Australia (QM); South Australian Museum, Adelaide, Australia (SAMA); and Western Australian Museum, Perth, Australia (WAM). A large collection of Opopaea from the Pacific region was kindly made available from J.W. Berry and J.A. Beatty collection, and is now deposited in the AMNH.

Specimens were examined using a Leica MZ16A microscope. Photomicrographic images were produced using a Leica DFC 500 and the software program AutoMontage Pro Version 5.2 (p). Specimens prepared for scanning electron microscopy were dehydrated in 100% ethanol; sputter coated, and imaged with a Hitachi TM\_1000 table top SEM, or a Zeiss

Evo LS15 SEM incorporating a Robinson back-scatter detector.

Descriptions were generated with the aid of the Planetary Biodiversity Inventory (PBI) descriptive goblin spider database and shortened where possible. Drawings are done from left palp. Characters and measurements are explained in Figs 2 and 3. All measurements are in millimeters. Abbreviations are used in the text as follows: ALE, anterior lateral eyes; ALS, anterior lateral spinnerets; EF, epigastric fold; GAp, globular appendix of female genitalia; GR, groove between tracheal spiracles; Na, nail-like process of female genitalia; PL, median plate; PLE, posterior lateral eyes; PLS, posterior lateral spinnerets; PME, posterior median eyes; PMS, posterior median spinnerets; PSc, paddlelike sclerite of female genitalia. Scale bars for habitus images are 1.0, and epigynes are 0.1. Full color, high-resolution versions of the images will be available on the goblin spider PBI website (http://research.amnh.org/oonopidae).

The species descriptions contain only the differences from the generic description. The description of the females includes just those differences from the male.

Because older locality labels often do not provide accurate geographical coordinates; latitudes and longitudes in parentheses, obtained from Google Earth, are included in the locality information.

#### SYSTEMATICS

Family Oonopidae Simon, 1890

Family Oonopinae Simon, 1890

#### Opopaea Simon, 1891

Opopaea Simon, 1891: 560 (type species by monotypy Opopaea deserticola Simon).

Epectris Simon, 1893: 74 (type species by monotypy Epectris apicalis Simon). NEW SYNONYMY.

Myrmecoscaphiella Mello-Leitão, 1926: 1 (type species by original designation Myrmecoscaphiella borgmeyeri Mello-Leitão). Synonymised by Platnick and Dupérré, 2009b: 3.

Nale Saaristo and Marusik, 2008: 39 (type species by original designation Opopaea lena Suman). Synonymised with Epectris by Platnick and Dupérré, 2009b: 29.

Diagnosis. The swollen male palpal patella of *Opopaea* which arises subbasally on the femur is also found in *Camptoscaphiella*, *Malagiella* and *Prethopalpus*; they differ from *Opopaea* by the presence of legs spines in *Camptoscaphiella* and *Malagiella*, and the unfused cymbium and bulb in *Camptoscaphiella* and *Prethopalpus*. *Opopaea* females and males have a pair of small dorsolateral, triangular extensions on the pedicel as well as paired curved scutal ridges on the scuto-pedicel region. Females of *Opopaea* share with *Prethopalpus* the paddle-like sclerite (PSc) and the nail-like structure (Na), but lack the single, central receptaculum.

Description. Male: Total length 1.0-2.6. Carapace pale orange to yellow-brown, without any pattern; ovoid in dorsal view (Fig. 4A), pars cephalica flat or slightly elevated in lateral view (Fig. 4E), anteriorly narrowed to 0.49 times its maximum width or less, with rounded or angular posterolateral corners, posterolateral edge without pits, posterior margin not bulging below posterior rim, anterolateral corners without extension or projections, posterolateral surface without spikes, surface of elevated portion of pars cephalica and sides smooth, striated or strongly reticulate, thorax without depressions, fovea absent, without radiating rows of pits; rebordered (Fig. 4A, E), with or without denticles; plumose setae near posterior margin of pars thoracica absent; non-marginal pars cephalica setae light or dark, needle-like, present in U-shaped row; marginal setae light or dark, needle-like. Clypeus margin slightly rebordered, curved downwards in front view (Fig. 8D), sloping forward or vertical in lateral view (Fig. 8E), high, ALE separated from edge of carapace, by their radius or more, median projection absent; setae present, light or dark, needle-like. Eyes: six, well-developed, or reduced, subequal, or ALE or PME largest, ALE circular, PME squared or circular, PLE circular; posterior eye row mostly recurved, sometimes straight from both above and front. Sternum longer than wide (Fig. 7B) or as long as wide (Fig. 4B), yellowish white, pale orange or orange brown, uniform, fused to carapace, median concavity absent, without (Fig. 7B) or with radial furrows (Fig. 4B) between coxae I-II,

II-III, III-IV, surface smooth, finely reticulate, coarsely reticulate with or without pits, sickleshaped structures absent, anterior margin unmodified, anterior corner unmodified, lateral margin with infra-coxal grooves and anterior and posterior openings (Fig. 7B), distance between coxae approximately equal (as Fig. 7B) or distance between coxae II and III larger (as Fig. 115B), without extensions of pre-coxal triangles, lateral margins unmodified, with or without posterior hump; posterior margin not extending posteriorly of coxae IV; setae sparse, light or dark, needle-like, evenly scattered, originating from small pits, without hair tufts. Mouthparts: chelicerae (Fig. 7D) straight, anterior face unmodified; without teeth on both promargin and retromargin; without toothlike projections, fang directed medially, shape normal, without prominent basal process, tip unmodified; setae needle-like, densest medially; paturon distal region unmodified, posterior surface unmodified, promargin unmodified, inner margin unmodified, without or with laminate groove (Fig. 81F). Labium (Fig. 7B) triangular, fused to sternum, with 2 or 5 setae on anterior margin, anterior margin indented at middle, same as sternum in sclerotization. Endites distally not excavated, serrula present in single row (Fig. 82F), posteromedian part unmodified, anteromedian tip with one strong tooth-like projection (Fig. 7B), same as sternum in sclerotization. Abdomen cylindrical or ovoid (Fig. 7A), without long posterior extension, rounded posteriorly; dorsum soft portions white, without color pattern. Book lung covers, ovoid (Fig. 7C), without setae, anterolateral edge unmodified. Posterior spiracles connected by groove. Pedicel tube short, with dorsolateral triangular extensions (Fig. 7G), scuto-pedicel region with pair curved scutal ridges (Fig. 6E), between ½-1 ½ of diameter of pedicel (Figs 3A-C), plumose hairs absent or present, matted setae on anterior ventral abdomen in pedicel area absent, cuticular outgrowths near pedicel absent. Dorsal scutum strongly or weakly sclerotized, orange brown to pale orange, without color pattern, covering full length of abdomen, no soft tissue visible from above, not fused to epigastric scutum (Figs 3A-C), middle surface smooth, sides smooth, anterior half

without projecting denticles. Epigastric scutum strongly or weakly sclerotized, surrounding pedicel, not protruding; post-epigastric scutum strongly or weakly sclerotized, pale orange to orange brown, long, semicircular, covering nearly full length of abdomen, fused to epigastric scutum in males, with short or long posteriorly directed lateral apodemes (Fig. 5C). Spinneret scutum present with incomplete ring and fringe of stout setae. Interscutal membrane with setae. Colulus represented only by two setae. Spinnerets and legs as in Platnick and Dupérré (2009). Male genitalia: epigastric region with small, circular or oval sperm pore situated at level of anterior spiracles, without protruding extension, rebordered (Fig. 7C). Palp (Figs 7 H-J) normal size, right and left palps symmetrical; trochanter normal size, unmodified; femur normal size, two or more times as long as trochanter, without posteriorly rounded lateral dilation; patella one to two times as long as femur, without prolateral row of ridges, femur attaching to patella subbasally (Fig. 5 I) or medially (Fig. 7H); setae unmodified; cymbium fused with bulb not extending beyond distal tip of bulb (Fig. 5G); bulb 1 to 1.5 times as long as cymbium, slender, tapering apically, plumose setae absent or present. Embolus with distal excavation (Fig. 3F, arrow) and retrolateral depression 'fenestra' (Fig. 3E, arrow), not separated from bulb, without conductor.

Females. Total length 1.2–2.2. As in male except as noted. Endites without anteromedian tooth-like projection. Epigastric and postepigastric scutum not fused. Genitalia in ventral view: Between genital opening and grove, connecting posterior spiracles, is a wide triangular chitinized area, situated close to genital. Genitalia in dorsal view: t-shaped or paddle like sclerite (PSc) situated near genital opening with nail-like process (Na) fitting into posterior situated globular appendix (GAp) (Fig. 6G).

Remarks. Platnick and Dupérré (2009) noted the close similarity between *Opópaea* and *Epectris* with the latter differing from *Opopaea* by the dark spot at the posterior end of the abdomen, the long, basal protrusion on the palpal bulb, and the inverted V-shaped sclerotization in the female genitalic area. Now that we have

surveyed a large range of different Old World species attributable to Opopaea, we feel that E. apicalis, the type species of the genus, is simply a highly modified species of Opopaea, and newly synonymise the two genera, with Opopaea having precedence over Epectris. As noted by Platnick and Dupérré (2009), the three other species attributed to Epectris are unlikely to be congeneric with the type species of Epectris or Opopaea. Grismado et al. (in press) has transferred E. aenobarbus Brignoli, 1978 from Bhutan (Brignoli 1978) to Trilacuua Tong and Li, 2007, leaving E. connjaingensis Xu, 1986 from China (Xu 1986), and E. mollis Simon, 1907 from Sri Lanka (Simon 1907) unaccounted for. With the synonymy of Epectris with Opopaea, we transfer these species to Opopaea until revisionary work on these species is undertaken:

- Opopaea connjaingensis (Xu, 1986), new combination (Xu 1986); and
- Opopaea mollis (Simon, 1907), new combination (Simon 1907).

Distribution. The genus *Opopaea* has a pantropical distribution. Some species have been recorded from single locations, although some Australian species are slightly more widespread. Many species can be regarded as short-range endemics as defined by Harvey (2002).

#### SPECIES FROM THE PACIFIC ISLANDS EXCLUDING NEW CALEDONIA Key to species

	Males
2.	Bulb distal part with complex folds (Figs 4 F, 7 H–J)3
-	the state of the s
3.	Bulb with huge semicircular folds wider than base of bulb (Figs 4 F-H) O. fiji
-	
4.	Bulb distal part strongly narrowed, with beak-

- 6. Bulb with prolateral seam at distal 1/3 part (Fig. 5G) . . . . . . . . . . O. foveolata
- Bulb without prolateral seam at distal 1/3 part ......7
- 7. Bulb ventrally expanded .... O. deserticola
- Bulb not expanded ventrally . . . O. concolor
- Epigastric region without inverted v-shaped sclerotization......10
- 9. Inverted v-shaped sclerotization, situated between epigastric furrow and connection of posterior spiracles......... *O. apicalis*

#### Opopaea apicalis (Simon, 1893), new comb.

Epectris apicalis Simon, 1893: 301.

Opopaea lena Suman, 1965: 227, figs 9-14. Synonymised by Platnick and Dupérré, 2009b: 30.

Gamasomorpha ladiguei Benoit, 1979; 198, fig. 4A-D. Synonymised with O. lena by Saaristo, 2001: 337.

Opopaca mortenseni Brignoli, 1980: 6, fig. 3. Synonymised with O. lena by Saaristo, 2001: 337.

Material examined. AUSTRALIA: Christmas Island:  $1 \colongled{\circlearrowleft}$ ,  $1 \colongled{\circlearrowleft}$ , vicinity of Grants Well, ca. 10.46667°S, 105.65000°E, 13-28 Apr. 1989, leaf log litter, J.F. Lawrence (WAM T129286, PBI\_OON 47410);  $1 \colongled{\circlearrowleft}$ , Hendersons Spring, CI-64,  $10^\circ$ 29'13"S,  $105^\circ$ 40'40"E, 7 April 1998, net over water outlet, W.F. Humphreys (WAM T84884, PBI\_OON 18047);  $1 \colongled{\circlearrowleft}$ , Island Wide Survey 2005, Parks Australia North, way point 123,  $10^\circ$ 28'42.4"S,  $105^\circ$ 34'25.9"E, 13 June 2005, M. Thomas, H. Alpisal (WAM T87160, PBI\_OON 5517);  $1 \colongled{\circlearrowleft}$ , Island Wide Survey 2005, Parks Australia North, way point 514,  $10^\circ$ 27'06.9"S,  $105^\circ$ 40'04.1"E, 12 Aug. 2005,

K. Retallick, M. Thomas (WAM T87161, PBI\_OON 5518). COOK ISLANDS: Aitutaki: 1 👌 near airstrip, 29 Mar. 1987, J. Berry (AMNH, PBI\_OON 37807). Rarotonga: 2 Q, Koromiri Island, 6 Apr. 1987, J. and E. Berry (AMNH, PBI\_OON 37803); Koromiri Motu, 8 June 1987, J. Berry, 1 ♀ (AMNH, PBI\_OON 37801); 5 Q, Muri, 21.25556°S, 159.73303°W, 25 Mar. 1987, J. Berry (AMNH, PBI\_OON 37800). MARSHALL ISLANDS: Kwajalein Atoll: 4 &, Ennylebegan Island, 25 July 1969, J. Berry (AMNH, PBI\_OON 37804); 2 ♀, same data (AMNH, PBI\_OON 37804); 6 ♀, Roi-Namur Islet, 9.39206°N, 167.46722°E, 27 July 1969, J. Berry (AMNH, PBI\_OON 37796); 3 8, same data (AMNH, PBI\_OON 37796); 1 3, Roi-Namur Islet, 9.39206°N, 167.46722°E, 22 July 1969, J. Berry (AMNH, PBI\_OON 37806); 2 d, South Gugeegu Island, 9.18446°N, 167.42558°E, 24 July 1969, J. Berry (AMNH, PBI\_OON 37798); 2 ♀, same data (AMNH, PBI\_OON 37798). Majuro Atoll: 1 ♀, Arniel Islet, 30 July 1969, J. Berry (AMNH, PBI\_OON 37808); 2 Q, Dalap Islet, 1 Aug. 1969, J. Berry (AMNH, PBI\_OON 37794); 1 \(\text{Q}\), Dalap Islet, 26 July 1968, J. Berry (AMNH, PBI\_OON 37805); 1 3, same data (AMNH, PBI\_OON 37805); 1  $\mathfrak{P}$ , same data (AMNH, PBI\_OON 250); 1 &, Rotain Islet, 3 Aug. 1969, J. Berry (AMNH, PBI\_OON 37799). PALAU: 2 ♀, Koror Island, 7.36055°N, 134.47916°E, 30 Mar. 1973, J. and E. Berry (AMNH, PBI\_OON 37797); Peleliu: 1 ♀, Angaur Island, 27 Apr. 1973, J. and E. Berry (AMNH, PBI\_OON 37793); 23 ♀, Angaur Island, 30 Apr. 1973, J. and E. Berry (AMNH, PBI\_OON 37795); 1 ♀, Angaur Island, 30 Apr. 1973, J. and E. Berry (AMNH, PBI\_OON 37802). USA: Hawaii: Hawaii Co.: 2 3, 4 ♀, Puna district, Route 137, 1 mi W Mackenzie State Park, 19.48300°N, 154.88384°W, 31 Jan. 1997, J. and E. Berry (AMNH, PBI\_OON 37792); 2 ♀, Puna district, Route 137, Mackenzie State Park, 2 Feb. 1997, J. and E. Berry (AMNH, PBl\_OON 37790); Kauai Co.: 2 9, National Tropical Botanical Garden, Lawai, near Poipu, 21.88230°N, 159.47558°W, 21 Jan. 1998, J. Berry (AMNH, PBI\_OON 37791); 1 2, National Tropical Botanical Garden, near Poipu, 20 m, 21.88660°N, 159.46675°W, 20 Jan. 1998, J. and E. Berry (AMNH, PBI\_OON 37789).

Description. *Male.* See Platnick and Dupérré (2009).

Female. See Platnick and Dupérré (2009).

Distribution. This pantropical species was fully redescribed by Platnick and Dupérré (2009). It is widely distributed in the both the New and Old Worlds, and we here provide new locality records from the Pacific Islands including Hawaii, as well as a new record from Christmas Island.

#### Opopaea concolor (Blackwall, 1859)

Oonops concolor Blackwall, 1859: 265.

Myrmecoscaphiella borgmeyeri Mello-Leitão, 1926: 2. Synonymised by Platnick and Dupérré, 2009: 22.

Opopaea devia Gertsch, 1936: 5, fig. 13. Synonymised by Platnick and Dupérré, 2009: 22.

Opopaea guaraniana Birabén, 1954: 203, figs 30-36, 50. Synonymised by Platnick and Dupérré, 2009: 22.

Opopaea haudina Chickering, 1969: 147, figs 1-3. Synonymised by Platnick and Dupérré, 2009: 22.

Gamasomorpha atlantica Benoit, 1977: 35, figs 13a-e. Synonymised by Saaristo and Marusik, 2008: 20.

Material examined. AUSTRALIA: Queensland: 4 👌 Bushy Island, 5 m, 20.98333°S, 150.03333°E, 18-20 Dec. 2008, A. Nakamura (QM S87352, S87354, S87360, S87365, PBI\_OON 23490, 23500, 23503, 23515); 2 👌 4 ♀, Erskine Island, 5 m, 23.50000°S, 151.91666°E, 6-8 Oct. 2008, A. Nakamura (QM S87311, S87316, S87320, PBI\_OON 23499, 23502, 23505); 1 ♂, 4 ♀ Lady Elliot Island, beach, 24.11200°S, 152.71000°E, 30 Mar.-6 May 2008, A. Nakamura (QM S87210, S87463, S87530, PBI\_OON 23491, 23495, 23507); 1 9, Lady Musgrave Island, 5 m, 23.96666°S, 152.35000°E, 11-13 May 2008, A. Nakamura (QM S87395, PBI\_ OON 23518); 1  $\stackrel{?}{\circ}$ , 2  $\stackrel{?}{\circ}$ , Masthead Island, Casuarina, litter, 5 m, 23.56666°S, 151.66666°E, 7 Oct. 2008, A. Nakamura (QM S87252, S87451, S87462, PBI\_OON 23506, 23510, 23520); 1 %, North Reef Island, 5 m, 23.16666°S, 151.96666°E, 29 Apr. 2009, A. Nakamura (QM S87410, PBI\_OON 23516); 4 ♂, 2 ♀, North West Island, 5 m, 23.33333°S, 151.75000°E, 9-11 Oct. 2008, A. Nakamura (QM S87259, S87284, S87288, S87499, S87506, S87512, PBI\_OON 23496-8, 23498, 23501, 23519, 23522); 1 ♀, One Tree Island, 5 m, 23.55000°S, 152.05000°E, 6 Aug.-23 Sept. 2008, A. Nakamura (QM S87443, PBI\_OON 23517); 1 d, West Fairfax Island, beach, 5 m, 23.71666°S, 152.40000°E, 12 May-25 June 2008, A. Nakamura (QM S87473, PBI\_OON 23504); 1 , West Hoskyn Island, 5 m, 23.75000°S, 152.28333°E, 13-15 May 2010, A. Nakamura (QM S87301, PBI\_OON 23523); 1 , Wilson Island, 5 m, 23.33333°S, 151.93333°E, 1 May-24 June 2008, A. Nakamura (QM S87440, PBI\_OON 23524). USA: Hawaii: Hawaii Co.: 1 0, Honokohau Harbor Beach, near Kailua, Scaevola-Messerchmidia litter, 18 Feb. 1995, J. Berry (AMNH, PBI\_OON 27963); 2 ♀, same data except 16 Feb. 1995 (AMNH, PBI\_OON 37824); 1 ♂, near Kailua–Kona, route 190 at mile marker 27.5, 17 Feb. 1995, J. and E. Berry (AMNH, PBI\_OON 37821); 1 ♀, Parker Ranch, 5 mi S Waimea on Rt. 19, in grass, 17 Feb. 1995, J. Berry (AMNH, PBI\_OON 27954); 1 Å, Route 190, mile marker 29.5, roadside grass litter, 19.66599°N, 155.98110°W, 17 Feb. 1995, J. Berry (AMNH, PBl\_OON 27973). Honolulu Co.: 1 Q, Oahu, May 02, 1943, N.L.H. Krauss (AMNH, PBI OON 209); 2 9, Oahu: Univ. of Hawaii Campus, 7 July 1957, A. Nadler (AMNH, PBI\_OON 208). Kauai Co.: 1 9, Kauai county airport near Port Allen, rock in field along beach, 21 Jan. 1998, J. Berry (AMNH, PBI\_OON 37499).

Description. *Male*. See Platnick and Dupérré (2009).

Female. See Platnick and Dupérré (2009).

Distribution. This pantropical species was fully redescribed by Platnick and Dupérré (2009). It is widely distributed in the both the New and Old Worlds, and we here provide new locality records from Hawaii and Queensland, Australia.

#### Opopaea deserticola Simon, 1891

Opopaea deserticola Simon, 1891: 560, plate 42, fig. 5.Opopaea darlingtoni Bryant, 1940: 267, figs 5, 7. Synonymised by Dumitresco and Georgesco, 1983: 103.

Opopaea timida Chickering, 1951: 233, figs 20, 21. Synonymised by Platnick and Dupérré, 2009: 4.

Opopaca brasima Chickering, 1969: 148, fig. 4-10. Synonymised by Dumitresco and Georgesco, 1983: 103.

Material examined. COOK ISLANDS: Aitutaki: 1 ♀, Moturakau Island, 21.20000°S, 159.80000°W, 28 Mar. 1987, J. Berry (AMNH, PBI\_OON 37826); 1 ♂, near airstrip, grass litter, 29 Mar. 1987, J. Berry (AMNH, PBI\_OON 27977); 1 ♀, same data (AMNH, PBI\_OON 27977); Rarotonga: 1 &, Arorangi village, tree shaking, 30 m, 14 Mar. 1987, J. and E. Berry, J. Beatty (AMNH, PBI\_OON 27976). FRENCH POLYNESIA: Marquesas Islands: Hiva Oa: 1 9, Hanamenu, litter in scrub woodland, 50 m, 4 Feb. 1987, J. Berry (AMNH, PBI\_OON 27799); 1 &, same data (AMNH, PBI\_OON 27799); 1 &, Hanamenu, 9.76571°S, 139.14050°W, 5 Feb. 1987, J. Berry, E. Berry (AMNH, PBI\_OON 38379); 4 ♂, Hanamenu, west ridge, among rock, 100 m, 5 Feb. 1987, J. Berry, E. Berry (AMNH, PBI\_OON 37424); 1 ♀, same data (AMNH, PBI\_OON 37424). Nuku Hiva: 1 ♂, near airport, desert habitat, in grass clump, 14 Feb. 1987, J. Berry (AMNH, PBI\_OON 37425); 2 ♀, same data (AMNH, PBI\_OON 37425); 1 \(\text{\Phi}\), Taiohae, 8.90978°S, 140.10176°W, 24 Jan. 1987, J. Berry (AMNH, PBI\_OON 38459); Tuamotu Archipelago: Rangiroa: 1 \(\text{\Phi}\), Aratorua Motu, 18.38282°S, 140.71206°W, 7 June 1987, E. Berry (AMNH, PBI\_OON 27971); 4 \(\text{\phi}\), same data (AMNH, PBI\_OON 27971). MARSHALL ISLANDS: Enewetak Atoll: 4 \( \rightarrow \), Bogan Islet (Irwin), 26 June 1969, J. Berry (AMNH, PBI\_OON 38382); 1 \( \rightarrow \), Grinem (Kotu) Island, 21 June 1969 (AMNH, PBI\_OON 37818); 2 \$\frac{1}{2}\$, Igurin Island, 18 June 1968 (AMNH, PBI\_OON 37815); 1 \$\frac{1}{2}\$, Janet, Engebi Island, 15 June 1968, J. Berry (AMNH, PBI\_OON 38446); 1 \$\frac{1}{2}\$, Japtan Island, 11.42400°N, 162.38400°E, 5 July 1968, J. Berry (AMNH, PBI\_OON 38461); 1 \$\frac{1}{2}\$, Parry Island, litter, 11.46883°N, 162.18666°E, 10 June 1969, J. Berry (AMNH, PBI\_OON 27975); 10 June 1969, J. Berry (AMNH, PBI\_OON 27975); 5 Q, Parry Island, 11.46883°N, 162.18666°E, 13 June 1969, J. Berry (AMNH, PBI\_OON 37814); 1 d, Rojoa Island (Ursula), 11.61666°N, 162.33333°E,

3 Aug. 1968, J. Beatty (AMNH, PBI\_OON 37816); 1 ♂, Sand Island, 19 June 1968, J. Berry (AMNH, PBI\_OON 38452); *Kwajalein Atoll*: 1 ♀, Kwajalein Islet, 9.16666°N, 167.41666°E, 20 July 1969, J. Berry (AMNH, PBI\_OON 38453). USA: *Hawaii*: *Hawaii* Co.: 1 ♀, Honokohau Harbor Beach, near Kailua, litter, 16 Feb. 1995, J. Berry (AMNH, PBI\_OON 37824); 1 ♂, Puna District, Isaac Hale Beach Park, Pandanus litter, 23 Feb. 1995, E. Berry (AMNH, PBI\_OON 27964). *Kauai* Co.: 1 ♀, Lawai, 21 Apr. 1997, D. Jamieson (AMNH, PBI\_OON 204); 1 ♀, Kure Island, Eragrostis, 28.70000°N, 178.56666°W, 1 Sept. 1961, G. Butler (AMNH, PBI\_OON 1083); 1 ♀, outside Hilo on Rt. 20: Kaumana Cave Co. Park, 10 Jan. 1980, K. and R. Schmidt (AMNH, PBI\_OON 205).

Description. Male. See Platnick and Dupérré (2009).

Female. See Platnick and Dupérré (2009).

Distribution. This pantropical species was fully redescribed by Platnick and Dupérré (2009). It is widely distributed in the both the New and Old Worlds, and we here provide new locality records from the Pacific islands.

#### Opopaea fiji Baehr, sp. nov. (Figs 4A-I)

Material examined. Holotype &: FIJI: Viti Levu: Nadarivatu, 17.56000°S, 177.96600°E, on Eucalyptus tree, 14 May 1987, J. Berry (AMNH, PBI\_OON 27962).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males can easily be separated from all other *Opopaea* species of the Pacific Islands by the cymbium-bulb complex with huge semicircular folds at distal part (Figs 4 F–H).

Description. *Male* (PBI\_OON 27962, Figs 4A–I). Total length 1.58. Prosoma, mouthparts and abdominal scutae orange brown, legs pale orange. Carapace broadly oval in dorsal view, pars cephalica slightly elevated in lateral view, sides striated, striation reaching PLE; lateral margin straight, with blunt denticles. Eyes, ALE: 0.085; PME: 0.074; PLE: 0.062, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their

length, PLE-PME touching. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen ovoid, pointed posteriorly; book lung covers small, ovoid; scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges and additional wide dorsal scutal ridge. Palpal patella 0.286 long, 0.143 wide, connection to femur 0.35; bulb ventrally strongly bulging with 2 extremely large, medially bent folds building nearly a circle (Figs 4 F-I).

Female. Unknown.

**Distribution.** This species is known only from the type locality in Fiji.

## *Opopaea foveolata* Roewer (Figs 5A-I, 6A-G)

Opopaea foveolata Roewer, 1963: 121, figs 6e-h.

Other material examined. COOK ISLANDS: Aitutaki: 1 ♀, Maina Island, 18.91420°S, 159.83201°W, 3 June 1987, J. Berry (AMNH, PBI\_OON 38388); 2 ♀, Moturakau Island, 21.20000°S, 159.80000°W, 28 Mar. 1987, J. Berry (AMNH, PBI\_OON 38450); 1 ♂, 1 ♀, Tautu, tree shaking, 26 Mar. 1987, J. Berry, J. Beatty (AMNH, PBI\_OON 27966); Rarotonga: 1 ♀, Turangi Valley, tree shaking, 20 m, 1 Apr. 1987, J. and E. Berry (AMNH, PBI\_OON 27955). FIJI: Kadavu: 1 &, 1 \$2, North Tip, Galoa I, 5 m, 19.06667°S, 178.16670°E, 27 June 1987, G. Monteith (QM S16761, PBI\_OON 6563); 1 ♀, Waterfall, 2.5 km E of Vunisea, 29–30 June 1987, G. Monteith (QM S16790, PBI\_OON 6562); Vanua Levu: 1 &, 1 \, , Savusavu/Labasa Divide, 20 m, 16.63333°S, 179.21670°E, 19 July 1987, G. Monteith, D. Cook (QM S16766, PBI\_OON 7398); Viti Levn: 2 \, 5 mi W Nausori, Naduruloulou Research Station, shaken from dead banana leaves, 15 May 1980, J. Beatty (AMNH, PBI\_OON 27968); 2 ♀, Nausori, shaken from banana leaves, 18 May 1987, J. and E. Berry (AMNH, PBI\_OON 27958); 1 ♀, Nausori, Koronivia Research Station, 8 May 1987, E. Berry (AMNH, PBI\_OON 38458); 1 &, W Lami, 9 km W Suva, 23 May 1987, J. and E. Berry (AMNH, PBI\_OON 37828). FRENCH POLYNESIA: Marquesas Islands: Fatu Hiva: 1 ♂, 1 ♀, Hanavave, coconut forest, 10.43333°S, 138.65000°E, 13 Feb. 1987, J. and E. Berry (AMNH, PBI\_OON 37423); *Hiva Oa*: 2 ♀, Atuona, 9.76879°S, 139.01125°W, 8 Feb. 1987, J. Berry (AMNH, PBI\_OON 37822); 4 ♂, 2 ♀ data except 11 Feb. 1987, J. Berry (AMNH, PBI\_OON 38451); 1 3, same data except 10 Feb. 1987 (AMNH, PBI\_ÓON 38454); 1 ♀, same data except 10 Feb. 1987 (AMNH, PBI\_OÓN 38457); Nuku Hiva: 1 ♂, Hakaui Bay, 8.79560°S, 140.22878°W, 25 Jan. 1987, J. Berry (AMNH, PBI\_OON 38386); Society Islands: Moorea

Is.: 1 ♂, Paopao Village, 17.50811°S, 149.82390°W, 16 Jan. 1987 (AMNH, PBI\_OON 37827). Tnamotn Archipelago: Rangiroa: 2 3, Topihairi Atoll, Manihi, 14.47500°S, 146.31500°W, 3 June 1987, J. Berry (AMNH, PBI\_OON 38445). MALAYSIA: Penang: 1 9, Georgetown, Gelugor, USM Campus, under lawn grass, 28 Dec. 1984, J. Beatty (AMNH, 27957). MARSHALL - ÍSLANDS: PBI OON Enewetak Atoll: 7 8, 3 9, Japtan Island, Scaevola-Messerchmidia litter, 11.42400°N, 162.38400°E, 19 July 1968, J. Berry (AMNH, PBI\_OON 27960); 1 ♀, 20 July 1968, J. Berry (AMNH, PBI\_OON 38383); Kwajalein Atoll: 2 9, Ennylebegan Island, in dead Scaevola leaves, 7 Aug. 1969, J. Berry (AMNH, PBI OON 27969); 2 ♀, 25 July 1969, J. Berry (AMNH, PBI\_OON 37823); 1 ♀, 21 July 1969 (AMNH, PBI\_ OON 38447); *Majuro Atoll*: 1 ♀, Renimyo Island, in grass clumps on beach, 6 Aug. 1969, J. Berry (AMNH, PBI\_OON 27967). MICRONESIA: 3 3, Saipan Island, Mariana Islands Laulau Bay area, 15.18333°N, 145.73333°E, 30 Dec. 1944, H. Dybas (FMNH, INS 0000 033 487, PBI\_OON 9994); *Polmpei*: 1 ♂, 3 ♀Ponape, E Kolonia, palm forest, 5 June 1973, J. Berry, J. Beatty (AMNH, PBI\_OON 27953); 1 ♀, Ponape, SW Sekere, 6.90000°N, 158.21000°E, 10 June 1973, J. Berry (AMNH, PBI\_OON 38384); *Yap*: 1 ♂, 1 ON 38456); 1 & Gilman Point, 15 Apr. 1980, J. Berry ON 38456); 1 & Gilman Point, 15 Apr. 1980, J. Berry (AMNH, PBI\_OON 38455); 2 &, Map, Chool, 12 Apr. 1980, J. Beatty, J. Berry (AMNH, PBI\_OON 37817); 1 Q, Ulithi atoll, Falalop, coconut litter, 9.97000°N, 139.67000°E, 2May 1980, J. Berry (AMNH, PBI\_OON 27956); 1 3, Wanyan, 9.53333°N, 138.11666°E, 17 Apr. 1980, J. Berry, J. Beatty (AMNH, PBI\_OON 37825); 1 8, same data (AMNH, PBI\_OON 38387). NEW CALEDONIA: Province Nord: 1 \(\sigma\), Aoupinie, top camp, litter, 850 m, 21.00000°S, 165.00000°E, 23 Nov. 2001, G. Monteith (QM S79735, PBI\_OON 22643); 1 Q, Col d'Amieu, 21.55000°S, 165.83330°E, 14 Mar. 1986, J. Boudinot (MNHN, PBI\_OON 225); 1 ♀, Col d'Amoss picnic area, 115 m, 20.31718°S, 164.42300°E. 29 Nov. 2003, G. Monteith (QM S79882, PBI\_OON 22598); 1 d, Cap Ndoua, rainforest, 50 m, 22.38333°S, 166.91666°E, 28–29 Nov. 2004, C. Burwell, S. Wright (QM S79809, PBI\_OON 22654); 2 ♂, 1 ♀, Port Boise (G. Kanu), bark, 22.35000°S, 166.96666°E, 27 Sept. 2004, G. Monteith (QM S79798, PBI\_OON 22629); 1 & Pouembout, Highway 7 km S., 21.16666°S, 164.86666°E, 2 Dec. 2003–1 Feb. 2004, G. Monteith (QM S79776, PBI\_OON 22588); 1 & Tiea Reserve, bark, 30 m, 21.11666°S, 164.95000°E, 4-5 Nov. 2001, C. Burwell, G. Monteith (QM S79794, PBI\_OON 22620); *Province Sud*: 1  $\circ$ , Mt Mbu base, rainforest, litter, 350 m, 22.08333°S, 166.36666°E, 4 Feb. 2004, G. Monteith (QM ex S79748, PBI\_OON 23486); 1 ♀, St.: 303 Plateau de Dogny, pente S, 700 m, 21.62472°S, 165.86805°E, 9 Jan. 1987, A. and S. Tillier (MNHN, PBI\_OON 221). PALAU: Hatohobei: 1 3, Helen Reef, coconut-Messerschmidia, 9 Apr. 1973, J. Berry (AMNH, PBI\_OON 27800). Kayangel: 1 ♀, Kayangel Atoll, shaking tree, coconut-Barringtonia, 8.06666°N,

134.70000°E, 22 May 1973, J. Berry (AMNH, PBI\_OON 27959); *Koror*: 3 ♀, Arakabesan, 7.55000°N, 134.75000°E, 23 Mar. 1973, J. Berry (AMNH, PBI\_OON 38510); 1 ♂, E Malakal, 7.21000°N, 134.25000°E, 9 Feb. 1973, J. Berry (AMNH, PBI\_OON 38385); 1 ♀, Koror Island, 7.36055°N, 134.47916°E, 20 Mar. 1973, J. Berry (AMNH, PBI\_OON 38448); 1 ♀, Rock Island E Malakal, 30 m, 7.21000°N, 134.25000°E, 8 Mar. 1973, J. Berry (AMNH, PBI\_OON 38449); *Ngareulengui*: 1 ♀, Airai, Babelthuap, 7.44944°N, 134.51717°E, 11 Mar. 1973, J. and E. Berry (AMNH, PBI\_OON 38460); 1 ♂, Arakabesan, tropical dry forest, tree shaking, 7.55000°N, 134.75000°E, 1 Mar. 1973, E. Berry (AMNH, PBI\_OON 38380); 3 ♂, Garakayo I., Pelew Islands, 7.01000°N, 134.25000°E, 8 Aug. 1945, H. Dybas (FMNH, INS 0000 033 486, PBI\_OON 9993); 9 ♂, 14 ♀, Pulo Anna Island, Caroline Islands, 4.68333°N, 131.98333°E, 7 Apr. 1973, E. Berry (AMNH, PBI\_OON 27970); *Sousorol*: 5 ♂, 5 ♀, Sonsorol Island, forest litter, 5.32444°N, 132.22111°E, 6 Apr. 1973, J. and E. Berry (AMNH, PBI\_OON 27961).

Diagnosis. Males and females resemble those of *O. deserticola* and *O. concolor* in body shape but can be distinguished by the prolateral seam at distal 1/3 part of the cymbium-bulb complex (Fig. 5G) and epigastric fold (EF) with small median knob; in dorsal view a paddle-like sclerite (PSc) with straight arms; nail-like process (Na) conical; globular appendix (GAp) small and circular (Fig. 6G).

Description. Male (PBI\_OON 22620, Figs 5A-I). Total length 1.11. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow. Carapace, broadly oval in dorsal view, sides striated. Clypeus curved downwards in front view, vertical in lateral view. Eyes, ALE: 0.082; PME: 0.071; PLE: 0.060, ALE largest, ALE circular, PME squared, PLE circular; posterior eve row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen ovoid, rounded posteriorly; book lung covers small, ovoid; scuto-pedicel region lower than diameter of pedicel, with strong curved paired curved scutal ridges and with knob opposite triangular extension. Palpal patella 0.152 long, 0.097 wide connected to femur at 0.033; cymbium-bulb complex

strongly bulging ventrally, with a prolateral ridge at distal third.

Female (PBI\_OON 07398, Figs 6A-G). Total length 1.30. Eyes, ALE: 0.066; PME: 0.060; PLE: 0.47. Epigastric area, ventral view, epigastric fold (EF) with small median knob; in dorsal view paddle-like sclerite (PSc) with straight arms; nail-like process (Na) conical; globular appendix (GAp) small circular.

Distribution. This species is widespread in the Pacific region and is known from many different islands.

Remarks. Opopaea foveolata was originally described from numerous specimens collected throughout Micronesia, including the types from Guam (Roewer 1963). Although we have not examined the types, the specimens used in this redescription sufficiently match the description and illustrations to be confident of their identity.

## Opopaea hawaii Baehr, sp. nov. (Figs 7A-J)

Type. Holotype ♂: USA: *Hawaii*: Kauai Co.: Kokee, 22.10944°N, 159.66388°W, 12 Sept. 1957, A. Nadler (AMNH, PBI\_OON 00207).

Other material. USA: *Hawaii*: Kauai Co.: 1 &, Kokee, 22.10944°N, 159.66388°W, 11 Sept. 1957, A. Nadler (AMNH, PBI\_OON 206); 1 &, same data except 12 Sept. 1957 (AMNH, PBI\_OON 23488).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. fiji* in body shape and having a huge folded palpal tip but can be distinguished by the folds being not circular but flattened.

Description. *Male* (PBI\_OON 00207, Figs 7A–J). Total length 2.20. Prosoma, mouthparts and abdominal scutae orange, palpal patella orange brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, sides striated; lateral margin straight, without denticles. Eyes big (Fig. 7D), ALE: 0.113; PME: 0.091; PLE: 0.094, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by

less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, radial furrows between coxae I-II, II-III, III-IV reduced to thin smooth lines (Fig. 7B). Abdomen, paired curved scutal ridges reduced to a pair of knobs (Fig. 7G), plumose hairs absent. Palpal patella 0.347 long, 0.183 wide, connection to femur 0.50; bulb ventrally slighty bulging with triangular wing-like structures on both sides of the tip (Figs 7 H–J).

Female. Unknown.

**Distribution.** This species is known only from Hawaii.

#### Opopaea palau Baehr, sp. nov. (Figs 8A-J)

Material examined. Holotype ♂: PALAU: Sonsorol Island, forest litter, 5.32444°N, 132.22111°E, 6 Apr. 1973, J.E. Berry (AMNH, PBl\_OON 27965).

Other material examined. PALAU: 1 &, Fanna Island, sand-plain, litter, 5.35000°N, 132.21666°E, 26 Aug. 2008, J.E. Czekanski-Moir (FMNH, INS 0000 056 905, PBI\_OON 10848).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. apicalis* in body shape and shape of cymbium-bulb complex with narrow median part and beak-shaped terminal elements but can be distinguished by the pedicel having a fringe of setae and the lack of a sharp basal protrusion (Fig. 8G, H) at the cymbium-bulb complex.

Description. *Male* (PBI\_OON 27965, Figs 8A-J). Total length 1.47. Prosoma, mouthparts and abdominal scutae pale orange, palpal patella orange brown, legs yellow. Carapace broadly oval, high-shouldered, top smooth, sides striated until surface of elevated portion of pars cephalica smooth, sides granulate; lateral margin rebordered, with blunt denticles. Eyes large, ALE: 0.081; PME: 0.073; PLE: 0.055, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than

ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum with radial furrows between coxae I-II, II-III, III-IV (Fig. 8B), furrow with rows of small pits. Abdomen ovoid; pedicel with fringe of long setae; scuto-pedicel region higher than diameter of pedicel, with connected paired curved scutal ridges that appeared as flattened W-shaped scutal ridge (Fig. 8G). Palpal patella 0.273 long, 0.122 wide, connection to femur 0.42, cymbium-bulb complex narrow, ventrally not bulging with extremely long strong incised tip, tip widened from dorsal view (Fig. 8 I).

Female. Unknown.

**Distribution.** This species is known only from Palau.

#### SPECIES FROM NEW CALEDONIA Key to species

	1.	Males2
	-	Females (unknown for <i>O. amieu</i> and <i>O. calcaris</i> )
	2.	Bulb with sharp basal protrusionO. apicalis
L	-	Bulb without sharp basal protrusion 3
3	3.	Bulb with prolateral seam at distal 1/3 part (Fig. 5G) O. foveolata
	-	Bulb without prolateral seam at distal 1/3 part4
E	4.	Carapace sides striated (as in Figs 22E, 26E) 5
1		Carapace sides smooth (as in Fig. 10E, 12E)
		10
- l	5.	Carapace slightly elevated (Figs 17E, 25E)6
<b>1</b>	_	Carapace high shouldered (Fig. 21E), bulb with prolateral rounded spur (Fig. 21H, I)
s f		O. platnicki
1	6.	Sternum with posterior tubercle (Fig. 29B)
3		O. tuberculata
7	Τ	Sternum tubercle absent (Fig. 17B) 7
n n	7.	Bulb narrow, ventrally slightly bulging (Figs 9H, 15H)

Bulb compact, ventrally strongly bulging

(Figs 18H, 26H)9	sclerite (Figs 18F, G, 26F, G)
<ul> <li>8. Body pale, scutae weak, bulbal tip broad (Figs 9H, I)</li></ul>	<ul> <li>19. Semicircular ridge posteriorly of epigastric fold (Figs 26F, G)</li></ul>
<ul> <li>9. Prosoma dark, bulbal tip short (Fig. 17H, I)</li></ul>	<ul> <li>20. Scuto-pedicel region with additional median ridge (Figs 11E, 20E)</li></ul>
<ul> <li>10. Bulb with prolateral acute spur (Figs 14H, I)</li></ul>	<ul> <li>21. Paired scutal ridges short interrupted (Fig. 20E)</li></ul>
<ul> <li>12. Scuto-pedicel region with additional median ridge (as Fig. 23G)</li></ul>	- Eyes small (Figs 28A, B, D)O. toulio  Opopaea amieu Baehr, sp. nov. (Figs 9A-J)
<ul> <li>13. Eyes small, bulb narrow with small 'fenestra' (Fig. 10 l)</li></ul>	Material examined. Holotype &: NEW CALEDONIA: <i>Province Nord</i> : 2 km W of Col d' Amieu Forestry Station, 21.55000°S, 165.83330°E, rainforest, litter, 430 m, 8 May 1984, G. Monteith, D. Cook (QM S79743, PBI_OON 22622).
14. Eyes large, bulb with s-shaped prolateral tip (Fig. 121)	Etymology. The specific name is a noun in apposition taken from the type locality.
<ul> <li>Eyes small, bulb with narrow prolateral tip (Figs 27H, 1)</li></ul>	<b>Diagnosis.</b> Males can be distinguished from all other <i>Opopaea</i> species from the Pacific Islands by the pale, weakly sclerotized scutae and the very broad palpal tip with deep retrolateral 'fenestra' (Fig. 9 l).
16. Carapace slightly elevated (Fig. 30E) 17  — Carapace high shouldered (Fig. 22B) O. platnicki	Description. <i>Male</i> (PBI_OON 22622, Figs 9A-J). Total length 1.32. Prosoma, mouthparts and abdominal scutae pale yellow, palpal patella
<ul> <li>17. Epigynal area with posterior small trianglular sclerite (Figs 30F, G) O. tuberculata</li> <li>Epigynal area without trianglular sclerite (as Figs 16F, G, 26F, G)</li></ul>	pale orange, legs white. Carapace, surface of elevated portion of pars cephalica smooth, sides finely striated; lateral margin without denticles. Eyes, ALE 0.055; PME 0.054; PLE 0.052, ALE largest, ALE, PLE circular, PME squared; posterior eye row recurved from above, straight
<ul> <li>18. 1 Epigastric fold with small knob-shaped sclerite (Fig. 16F, G)</li></ul>	from front; ALE separated by less than their radius, ALE-PLE touching, PME touching, PLE-PME touching. Sternum longer than wide,

surface smooth, with radial furrows between coxae I-II, II-III, III-IV, bulging between coxae IV; setae abundant, light, evenly scattered, originating from small pits. Abdomen ovoid; book lung covers large; dorsal scutum covering full length of abdomen; epigastric scutum not protruding; post-epigastric scutum almost semicircular, with long posteriorly directed lateral apodemes, covering nearly full length of abdomen. Palpal patella 0.272 long, 0.136 wide, connection to femur 0.55; bulb slightly bulging, tip very broad, square with deep retrolateral 'fenestra' (Fig. 9 I).

Female. Unknown.

**Distribution.** *Opopaea amieu* is known only from rainforest litter of Col d' Amieu in New Caledonia.

## Opopaea bicolor Baehr, sp. nov. (Figs 10A-J, 11A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Nord: Col d' Amieu Forestry Station, 21.55000°S, 165.83330°E, 440 m, 26 May 1987, R.J. Raven (QM S95135, PBI\_OON 22621). Allotype ♀: collected with holotype (QM S11718, PBI\_OON 23435).

Other material examined. NEW CALEDONIA: *Province Nord*: 1  $\,^{\circ}$ , Col d' Amieu, 4 km N, litter, 300 m, 21.55000°S, 165.83333°E, 8 May 1984, G. Monteith, D. Cook (QM S79812, PBl\_OON 22652); 1  $\,^{\circ}$ , Gelima, 5 km S., rainforest, litter, 485 m, 21.58333°S, 165.98333°E, 15 Nov. 2002, G. Monteith (QM S79741, PBl\_OON 22625); 1  $\,^{\circ}$ , 2  $\,^{\circ}$ , 2 km W Col d' Amieu Forestry Station, rainforest, 430 m, 21.55000°S, 165.83330°E, 26 May 1987, N. Platnick, R. Raven (AMNH, PBl\_OON 23447); 1  $\,^{\circ}$ , 1  $\,^{\circ}$ , Col d' Amieu, rainforest, litter, 400 m, 21.75000°S, 165.85000°E, 31 July-7 Aug. 1978, S. and J. Peck (AMNH, PBl\_OON 23445); *Province Sud*: 1  $\,^{\circ}$ , Mt Mou base, rainforest, litter, 350 m, 22.08333°S, 166.36666°E, 4 Feb. 2004, G. Monteith (QM S95143, PBl\_OON 23485); 3  $\,^{\circ}$ , Col des Rousettes, dry forest, litter, 490 m, 21.45000°S, 165.46660°E, 29 May 1987, N. Platnick, R. Raven (AMNH, PBI\_OON 23444).

Etymology. The specific name *bicolor* is a Latin adjective meaning with two colors.

Diagnosis. Males of this species resemble *O. burwelli* in body shape, having a cephalothorax with smooth sides, and a slim cymbium-bulb complex but can be distinguished by much smaller eyes and the straight prolateral bulbal tip (Figs 10D, H). In females, the epigastric fold

(EF) in dorsal view has a paddle-like sclerite (PSc) with straight arms (Fig. 11G).

Description. Male (PBI\_OON 22621, Figs 10A-J). Total length 1.58. Prosoma and palpaI patella orange brown, cymbium-bulb complex pale orange, legs yellow, femora and basal half of tibiae darkened, abdominal scutae pale orange. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, sides smooth, posteriorly with a pair of rounded humps and a horizontal row of 6 setae; lateral margin straight, with blunt denticles; clypeus margin slightly rebordered, straight in front view, vertical in lateral view. Eyes, ALE: 0.056; PME: 0.051; PLE: 0.043, ALE largest, all eyes circular; posterior eve row recurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide with radial furrows between coxae I-II, II-III, III-IV, furrow smooth; setae sparse, light, evenly scattered, originating from small pits. Abdomen ovoid; book lung covers large, ovoid; scuto-pedicel region more than diameter of pedicel, with paired curved scutal ridges, an additional dorsal, median scutal ridge and plumose setae on the sides of the pedicel. Palpal patella 0.320 long, 0.150 wide, connection to femur 0.50; cymbium-bulb complex slender, ventrally slightly bulging, distal part prolaterally straight, with triangular tip in retrolateral view (Fig. 10H).

Female (PBI\_OON 23435, Figs 11A-G). Total length 1.79. Eyes, ALE: 0.058; PME: 0.039; PLE: 0.037. Epigastric area, dorsal view paddle-like sclerite (PSc) with straight arms (Fig. 11G).

**Distribution.** This species is known only from New Caledonia.

## Opopaea burwelli Baehr, sp. nov. (Figs 12A-J, 13A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Sud: Plateau de Dogny, rainforest, litter, 21.61666°S, 165.88333°E, 1085 m, 16 Nov. 2002, C. Burwell (QM S79863, PBl\_OON 22591). Allotype ♀: collected with holotype (QM S79863, PBl\_OON 23424).

Other material examined. NEW CALEDONIA: Province Sud: 1 \$\,\text{Q}\$, Me Maoya camp, rainforest, litter, 1170 m, 21.36666°S, 165.33333°E, 12 Nov. 2002, G. Monteith (QM S79740, PBI\_OON 22638); 1 \$\,\text{Q}\$, Plateau de Dogny, rainforest, litter, 1085 m, 21.61666°S, 165.88333°E, 16 Nov. 2002, C. Burwell (QM S79863, PBI\_OON 23425); Province Nord: 3 \$\,\text{Q}\$, Ningua Res. camp, 21.00000°S, 165.00000°E, 12-13 Nov. 2001, G. Monteith (QM S60488, PBI\_OON 7395); 4 \$\,\text{Q}\$ (QM S60488, PBI\_OON 7395).

Etymology. This species is named for Chris Burwell who collected the types as well as many other Oonopidae.

Diagnosis. Males and females resemble those of *O. toulio* in having a high shouldered carapace and scuto-pedicel region without additional medial ridge, cephalothorax with smooth sides, and in males a slim cymbium-bulb complex, but can be distinguished by much larger eyes and in males bulb with s-shaped prolateral tip (Fig. 12 I). The epigastric area of females, in dorsal view, has a paddle-like sclerite (PSc) with arms bent at the end (Fig. 13G).

Description. Male (PBI\_OON 22591, Figs 12A-J). Total length 1.85. Prosoma, mouthparts and abdominal scutae orange brown, palpal patella dark brown. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, top and sides smooth, with shoulders, lateral margin straight. Clypeus margin slightly rebordered, curved downwards in front view, sloping forward in lateral view. Eyes large, ALE: 0.109; PME: 0.093; PLE: 0.084, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region higher than diameter of pedicel, with paired curved scutal ridges, without additional ridge, plumose hairs on sides of pedicel; postepigastric scutum long, semicircular, with long posteriorly directed lateral apodemes. Palpal patella 0.327 long, 0.192 wide, connection to femur: 0.46. cymbium-bulb complex with seam (Fig. 12H), extremely slim, ventrally slightly bulging, prolaterally curved (Fig. 12 I).

Female (PBI\_OON 23424, Figs 13A-G). Total length 2.16. Eyes extremely large, ALE: 0.108;

PME: 0.086; PLE: 0.076. Epigastric area, ventral view epigastric fold (EF) widely triangular, with small knob; in dorsal view a paddle-like sclerite (PSc) with arms bent at the end; naillike process (Na) small; globular appendix (GAp) divided into a hood and drop-shaped extension (Fig. 13G).

Distribution. Opopaea burwelli is known only from New Caledonia.

#### Opopaea calcaris Baehr, sp. nov. (Figs 14A-J)

Material examined. Holotype ♂: NEW CALEDONIA: *Province Sud*: Foret Nord, rainforest, litter, 22.32482°S, 166.91420°E, 480 m, 10 Dec. 2004–9 Jan. 2005 (Monteith, Grimbacher (QM S79778, PBI\_OON 22617).

Other material examined. NEW CALEDONIA: *Province Sud:* 1 Å, Cap Ndoua, rainforest, 22.38333°S, 166.91666°E, 50 m, 28 Nov. 2004–8 Jan. 2005, Monteith, Grimbacher (QM S79787, PBI\_OON 22581); 1 Å, Cap Ndoua, rainforest, litter, 22.38333°S, 166.91666°E, 50 m, 28–29 Nov. 2004, C. Burwell, S. Wright (QM S79810, PBI\_OON 22660); 1 Å, Cap Ndoua, rainforest, litter, 50 m, 22.38333°S, 166.91666°E, 28 Nov. 2004–8 Jan. 2005, G. Monteith (QM S79811, PBI\_OON 23448); 1 Å, Foret cachee, end of trail road Grande Terre, 22.19444°S 166.79055°E, 4 May 2007, J. Murienne, P. Sharma (MCZ 510, PBI, PBI\_OON 23676).

Etymology. The specific name is Latin, *calcar*, *calcar* is meaning spur, referring to the prolateral palpal spur of this species.

**Diagnosis.** The species resembles *O. platnicki* in having a prolateral extension at the basis of the cymbium-bulb complex but can be distinguished by the smooth sides of the carapace and the pointed spur (Fig. 14 I).

Description. Male (PBI\_OON 22617, Figs 14A-J). Total length 1.50. Prosoma, mouthparts, abdominal scutae and palpal patella orange brown, legs yellow, without color pattern. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, with shoulders, surface top and sides smooth. Eyes, ALE: 0.091; PME: 0.076; PLE: 0.069, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with

radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Book lung covers large, ovoid, with longitudinal ridge; scuto-pedicel region higher than diameter of pedicel, with paired curved scutal ridges and additional wide dorsal scutal ridge (Fig. 14G), plumose hairs on sides of pedicel. Palpal patella 0.263 long, 0.159 wide, connection to femur at 0.46; cymbium-bulb complex slender, with visible seam, ventrally slightly bulging and strong, pointed prolateral spur at base, distal part with long slender medially bent tip (Fig. 14H, I).

Female. Unknown.

Distribution. This species is known only from southeastern New Caledonia.

#### Opopaea goloboffi Baehr, sp. nov. (Figs 15A-J, 16A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Snd: Plateau de Dogny, rainforest, litter, 21.61666°S, 165.88333°E, 1085 m, 16 Nov. 2002, C. Burwell (QM S79863, PBI\_OON 23426). Allotype ♀: Plateau de Dogny, montane forest, 21.61666°S, 165.88333°E, 910 m, 25 May 1987, N. Platnick, R. Raven (AMNH (PBI\_OON 212).

Other material examined. NEW CALEDONIA: *Province Sud*: 1 ♀, Pic du Pin, rainforest, litter, 22.24829°S, 166.82900°E, 23 Dec. 2004, G. Monteith (QM S79738, PBI\_OON 22635); 1 ♂, Montagne des Sources, montane rainforest, litter, 900 m, 22.11666°S, 166.60000°E, 5 Sept. 1990, N. Platnick, R. Raven, P. Goloboff (AMNH, PBI\_OON 213); 1 ♂, Ningua Res. camp, rainforest, litter, 1100 m, 21.75000°S, 166.15000°E, 27 Nov. 2001–29 Jan. 2002, G. Monteith (QM S60498, PBI\_OON 7403); 1 ♂, Houp Geant, 22.15°S 166.68333°E, 320 m, 6 May 2005, G. Monteith (QM S79777, PBI\_OON 22594).

Etymology. This species is named for Pablo Goloboff, renowned arachnologist and creator of NONA and TNT, who collected specimens of this species.

Diagnosis. Males resemble those of *O. tuberculata* in scuto-pedicel region about diameter of pedicel with weak scutal ridges, sides of carapace striated and having long narrow palpal bulb but can be distinguished by the lack of a sternal crest between coxa IV (Fig. 15B). Females, the epigastric area in dorsal view has paddle-like sclerite (PSc) with evenly bent arms (Fig. 16G).

Description. Male (PBI\_OON 23426, Figs 15A-J). Total length 1.27. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow. Carapace, pars cephalica slightly elevated in lateral view, sides striated; lateral margin straight, with blunt denticles. Eyes small, ALE: 0.055; PME: 0.055; PLE: 0.037, ALE largest, ALE circular, PME squared, PLE circular; posterior eve row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae 1-II, II-III, III-IV, furrow smooth. Palpal patella: 0.225 long, 0.130 wide, connection to femur 0.50, bulb long and narrow, ventrally slightly bulging with broad distal tip slightly bent medially (Fig. 15 I).

Female (PBI\_OON 22635, Figs 16A-G). Total length 1.50. Eyes, ALE: 0.060; PME: 0.055; PLE: 0.048. Epigastric area, in ventral view the epigastric fold (EF) has a small semicircular concavity, with a small knob (Fig. 16F); in dorsal view paddle-like sclerite (PSc) with evenly bent arms (Fig. 16G); nail-like process (Na) small; globular appendix (GAp) divided into hood and drop-shaped extension.

**Distribution.** This species is known only from New Caledonia.

## Opopaea monteithi Baehr, sp. nov. (Figs 17A-J, 18A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Nord: Pombey 8 km SW Highway, 20.90000°S, 165.11666°E, 300 m, bark, 28 Nov. 2003, G. Monteith (QM S79737, PBI\_OON 22640). Allotype ♀: collected with holotype (QM S79737, PBI\_OON 23429).

Other material examined. NEW CALEDONIA: *Province Nord*: 1 \$\, 6 km NNE of CoI d'Amieu, 21.55000°S, 165.85000°E, 300 m, bark, 11 Nov. 2001, C. Burwell (QMS79788, PBI\_OON 22607); 1 \$\, \text{, Mandjelia, lower creek, 20.40000°S, 164.51666°E, 550 m, bark, 7-8 Nov. 2001, G. Monteith (QMS79814, PBI\_OON 22648); 1 \$\, \text{, 2km W of Col d' Amieu Forestry Station, rainforest, 21.55000°S, 165.83330°E, 430 m, litter, 26 May 1987, N. Platnick, R. Raven (AMNH, PBI\_OON 23446); 1 \$\, \text{, same data except 1 Jan. 2002, G. Monteith (QMS79762, PBI\_OON 22630); *Province Sud*: 1 \$\, \text{, Port Boise (G.

Kanua), 22.35000°S, 166.96666°E, 20 m, bark, 18 Nov. 2002, G. Monteith (QM S79817, PBI\_OON 22647).

**Etymology.** This species is named for Geoff Monteith who collected the types as well as many other goblin spiders.

Diagnosis. Males resemble those of *O. striata* in body shape and having a strongly bulging bulb but can be distinguished by the the darker prosoma and the short, medially bent palpal tip (Fig. 17 I). In females, the epigastric area in dorsal view has a nearly straight paddle-like sclerite (PSc), which is only slightly bent at the end (Fig. 18G).

Description. Male (PBI\_OON 22640, Figs 17A-J). Total length 1.49. Cephalothorax and palpal patella orange brown, sternum, mouthparts and abdominal scutae pale orange and legs yellow. Cephalothorax broadly oval in dorsal view, pars cephalica slightly elevated in lateral view, sides striated; lateral margin undulate. Eyes large, ALE: 0.075, PME: 0.070, PLE: 0.054, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with smooth radial furrows between coxae I-II, II-III, III-IV. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges and an additional median scutal ridge. Palpal patella, 0.270 long, 0.150 wide, connection to femur at 0.52; bulb ventrally strongly bulging with short medially bent tip.

Female (PBI\_OON 23429, Figs 18A-G). Total length 1.68. Eyes, ALE: 0.081, PME: 0.060, PLE: 0.053. Epigastric area, ventral view, chitinized area (Ch) widely triangular, acute posteriorly, separated into two parts; in dorsal view paddle-like sclerite (PSc) nearly straight, slightly bent at the end; nail-like process (Na) small; globular appendix (GAp) triangular (Fig. 18G).

Distribution. This species is known only from New Caledonia.

#### Opopaea udoua Baehr, sp. nov. (Figs 19A-J, 20A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Sud: Cap Ndoua, rainforest, litter, 22.38333°S, 166.93333°E, 150 m, 28 Nov. 2004–8 Jan. 2005, Monteith, Grimbacher (QM S95136, PBI\_OON 22572). Allotype ♀: collected with holotype (QM S79761, PBI\_OON 23449).

Other material examined. NEW CALEDONIA: *Province Sud*: 1  $\circlearrowleft$ , same data as holotype (QM S95137, PBI\_OON 23450); 2  $\circlearrowleft$ , Cap Ndoua, rainforest, litter, 22.38333°S, 166.91666°E, 50 m, 28 Nov. 2004–8 Jan. 2005, G. Monteith (QM S79811, PBI\_OON 22653).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males and females resemble those of *O. monteithi* in body shape, and in males having a strongly bulging ventral bulb and a short medially bent tip but can be distinguished by the smooth carapace. Females have a paddle-like sclerite (PSc) with strongly bent arms (Fig. 20G).

Description. *Male* (PBI\_OON 22572, Figs 19A-J). Total length 1.52. Prosoma, mouthparts and abdominal scutae pale orange, palpal patella orange brown, legs yellow. Pars cephalica slightly elevated in lateral view, surface of elevated portion and sides smooth; lateral margin rebordered with blunt denticles. Eyes, ALE: 0.073, PME: 0.061, PLE: 0.057, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum with smooth radial furrows between coxae I-II, II-III, III-IV. Abdomen ovoid; book lung covers with longitudinal ridge. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges and a short additional median scutal ridge. Palpal patella, 0.277 long, 0.145 wide, connection to femur 0.42; bulb ventrally strongly bulging with tiny medially bent tip (Figs 19H, I).

Female (PBI\_OON 23449, Figs 20A-G). Total length 1.60. Eyes, ALE: 0.085; PME: 0.076; PLE: 0.067. Epigastric area, ventral view epigastric fold (EF) with small semicircular concavity and

small median knob; in dorsal view paddle-like sclerite (PSc) with strongly bent arms (Fig. 20G); nail-like process (Na) long triangular; globular appendix (GAp) a drop-shaped extension.

Distribution. This species is known only from Cap Ndoua in New Caledonia.

#### Opopaea platnicki Baehr, sp. nov. (Figs 21A-J, 22A-G)

Material examined. Holotype ♂: NEW CALEDONIA: *Province Sud:* Col des Rousettes, dry forest, 21.45000°S, 165.46660°E, 490 m, 29 May 1987, N. Platnick, R. Raven (AMNH (PBI\_OON 00215). Allotype ♀: collected with holotype (AMNH, PBI\_OON 23443).

Other material examined. NEW CALEDONIA: Province Sud: 1 \$\operacle}\$, Me Maoya summit plateau, rainforest, litter, 21.36666°S, 165.33333°E, 1400 m, 12 Nov. 2002, G. Monteith, C. Burwell (QM S86416, PBI\_OON 23484); 1 \$\operacle}\$, Col des Rousettes, rainforest, litter, 21.41666°S, 165.46666°E, 500 m, 31 July-7 Aug. 1978, S. and J. Peck (FMNH, FMHD78-256, PBI\_OON 10308); 2 \$\operacle}\$, Col des Rousettes, bark, 21.41666°S, 165.46666°E, 500 m, 2 Feb. 2004, G. Monteith (QM S79780, PBI\_OON 22580); 4 \$\operacle}\$, 1 \$\operacle}\$, Col des Rousettes, dry forest, litter, 490 m, 21.45000°S, 165.46660°E, 29 May 1987, N. Platnick, R. Raven (AMNH, PBI\_OON 23443).

Etymology. This species is named for internationally renowned arachnologst Norman Platnick, who created the world spider catalog and collected the types as well as many other Oonopidae.

Diagnosis. Males resemble those of *O. calcaris* in body shape, being high shouldered and having a prolateral spur at base of cymbiumbulb complex but can be distinguished by the striated sides of the carapace and the rounded bulbal spur (Fig. 21 I). Females have a paddle-like sclerite (PSc) with with straight arms (Fig. 22G).

Description. Male (PBI\_OON 00215, Figs 21A–J). Total length 1.47. Prosoma, mouthparts and abdominal scutae and palpal patellae orange brown, legs pale orange. Carapace broadly oval in dorsal view, high shouldered, only half of the sides striated; lateral margin straight, with blunt denticles. Eyes large, ALE: 0.092; PME: 0.073; PLE: 0.063, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most

of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges, and additional median ridge. Palpal patella 0.259 long, 0.151 wide, connection to femur 0.45; cymbium-bulb complex narrow, with rounded prolateral spur at base and short, medially bent tip (Figs 21 H–I).

Female (PBI\_OON 23443, Figs 22A-G). Total length 1.68. Eyes, ALE: 0.081; PME: 0.069; PLE: 0.058. Epigastric area, ventral view, epigastric fold (EF) with small semicircular concavity and tiny knob; in dorsal view paddle-like sclerite (PSc) with straight arms; nail-like process (Na) small knob; globular appendix (GAp) small, knob-like.

**Distribution.** This species is known only from central New Caledonia.

#### Opopaea raveni Baehr, sp. nov. (Figs 23A-J, 24A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Sud: Mt Mou, base, rainforest, litter, 22.08333°S, 166.33333°E, 350 m, 18 Apr. 2005, G. Monteith (QM S79808, PBl\_OON 22656). Allotype ♀: Col d' Amieu, W-slope, rainforest, litter, 21.61666°S, 165.81666°E, 470 m, 27 Jan. 2004, G. Monteith (QM S79747, PBI\_OON 22602).

Other material examined. NEW CALEDONIA: Province Nord: 1 o, Col d' Amieu, 21.55000°S, 165.83330°E, 13 Mar. 1986, J. Boudinot (MNHN, PBI\_OON 222); 3 ♂, 3 ♀, Col d'Amieu, 21.55000°S, 165.83330°E, 440 m, 26 May 1987, R.J. Raven (QM S11520, PBI\_OON 22595); 4 &, Col d'Amieu, W-slope, rainforest, litter, 21.61666°S, 165.81666°E, 470 m, 27 Jan. 2004, G. Monteith (QM S79747, PBI\_OON 22602); Koumac Caves, 20.53525°S, 164.33950°E, 19 m, 4 Aug. 1978, S. and J. Peck, 1 ♀ (AMNH AMNH, PBI\_OON 23441). *Province Sud*: 1 ♀, Baie d'Upi, Ile de Pins, 22.59583°S, 167.52305°E, 20 Apr 2007, J. Murienne, P. Sharma (487, PBI\_OON 23674); 1 ♀, same data (485, PBI\_OON 23675); 1 ♀, Dzuma Road junction, 23.03232°C, 166.4666°F, 950 m. 5. Dz. 2002, 2001. 22.03333°S, 166.46666°E, 950 m, 5 Dec. 2003-26 Jan. 2004, G. Monteith (QM S79807, PBI\_OON 22657); 1 ♀, Foret Nord, litter, 22.32482°S, 166.91420°E, 480 m, 1-2 Dec. 2004, Monteith, Grimbacher (QM S79779, PBI\_OON 22587); 1 Q, Mt Do, summit, rainforest, litter, 21.75000°S, 166.00000°E, 1000 m, 20 May 1984, G. Monteith (QM S79753, PBI\_OON 22577); 1 3, 1 ♀, Mt Do, summit, 21.75000°S, 166.00000°E, 1000 m, 20 May 1987, R.J. Raven (QM S44594, PBI\_OON

22590); 1 Å, Mt Koghis, rainforest, litter, 22.16666°S, 166.51666°E, 700 m, 3 Nov. 2002, G. Monteith (QM S79745, PBI\_OON 22611); Pic du Pin [GBM Site 1], litter, 22.24829°S, 166.82900°E, 26 Nov. 2004, Monteith, Grimbacher, 1 ♀ (QM S79815, PBI\_OON 22649); 1 ♀, 2 km W col d'Antieu Forestry Station, rainforest, litter, 21.55000°S, 165.83330°E, 430 m, 8 May 1984, G. Monteith, D. Cook (QM S79743, PBI\_OON 23432); 2 Å, 3 ♀, 2 km W Col d'Amieu Forestry Station, rainforest, litter, 21.55000°S, 165.83330°E, 430 m, 26 May 1987, N. Platnick, R. Raven (AMNH, PBI\_OON 217); 3 Å, 1 ♀, same data (AMNH, PBI\_OON 217); 3 Å, 1 ♀, same data (AMNH, PBI\_OON 214); 1 Å, 2 ♀, Col d'Ameiu, W slope upper, litter, 21.61666°S, 165.81666°E, 480 m, 3 May 2005, G. Monteith (QM S79784, PBI\_OON 22574); 1 ♀, Col des Rousettes, dry forest, litter, 21.45000°S, 165.46660°E, 490 m, 29 May 1987, N. Platnick, R. Raven (AMNH, PBI\_OON 23442); 6 Å, 2 ♀, Mt Mou, base, rainforest, litter, 22.08333°S, 166.33333°E, 350 m, 4 Feb. 2004, G. Monteith (QM S79748, PBI\_OON 22596); 1 Å, 1 ♀, Mt. Koghis, 22.25000°S, 166.51666°E, 500 m, 26 July 1978, S. and J. Peck (FMNH, FM(DH) #78–252, PBI\_OON 10305); 1 ♀, Ningua Res. camp, rainforest, litter, 21.75000°S, 166.15000°E, 1100 m, 27 Nov. 2001–29 Jan. 2002, G. Monteith (QM S60498, PBI\_OON 23433); 1 ♀, Pic du Grand Kaori, rainforest, litter, 22.28333°S, 166.88333°E, 250 m, 22 Dec. 2004, G. Monteith (QM S79764, PBI\_OON 22606); 1 ♀, Pic de Grand Kaori, litter, 22.28333°S, 166.88333°E, 250 m, 22 Nov. 2004–12 Jan. 2005, Monteith, Grimbacher (QM S79792, PBI\_OON 22589); 2 Å, 2 ♀, same data (QM 79791, PBI\_OON 22614).

Etymology. This species is named for Robert Raven, a distinguished Australian arachnologist, who collected many Oonopidae.

Diagnosis. Males and females resemble those of *O. bicolor* in coloration and having smooth sides of the carapace but can be distinguished by much larger eyes. Males have a widened palpal tip (Fig. 23 I). In females the epigastric area in dorsal view has a paddle-like sclerite (PSc) with straight arms, ends slightly bent just reaching epigastric fold (Fig. 24G).

Description. Male (PBI\_OON 22656, Figs 23A-J). Total length 1.49. Carapace and palpal patella orange brown, sternum, mouthparts and abdominal scutae pale orange, legs pale orange. Carapace broadly oval in dorsal view, high shouldered, top and sides smooth, lateral margin straight, with blunt denticles. Eyes large, ALE: 0.089; PME: 0.082; PLE: 0.073, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by

less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges, and additional median scutal ridge. Palpal patella 0.287 long, 0.141 wide, connection to femur 0.59; cybiumbulb complex ventrally slightly bulging, with broad, triangular tip in dorsal view (Fig. 23 I).

Female (PBI\_OON 22602, Figs 24A–G). Total length 1.68. Eyes, ALE: 0.081; PME: 0.066; PLE: 0.061. Epigastric area, ventral view, epigastric fold (EF) with small semicircular concavity and small knob; in dorsal view paddle-like sclerite (PSc) with straight arms, slightly bent at the end; nail-like process (Na) small knob; globular appendix (GAp) a long, drop-shaped extension.

**Distribution.** This species is known only from New Caledonia.

#### Opopaea striata Baehr, sp. nov. (Figs 25A-J, 26A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Sud: Col d'Ameiu, W slope upper, bark, 21.61666°S, 165.81666°E, 480 m, 25 Nov. 2003, G. Monteith (QM S95138, PBI\_OON 22632). Allotype ♀: collected with holotype (QM S79774, PBI\_OON 23427).

Other material examined. NEW CALEDONIA: Province Nord: 1 \$\partial \text{, Aoupini\(\text{i}\) Top Camp, bark, 21.17888°S, 165.30277°E, 750 m, 2 May 2005, G. Monteith (QM S79790, PBI\_OON 22585); 1 \$\partial \text{, 4}\$\$\$\partial \text{, Col d'Amieu, bark, 21.55000°S, 165.83330°E, 440 m, 14 Nov. 2002, C. Burwell (QM S79785, PBI\_OON 22619); 1 \$\partial \text{, Col d'Amieu, bark, 21.55000°S, 165.83330°E, 440 m, 27 Jan. 2004, G. Monteith (QM S79759, PBI\_OON 22636); 1 \$\partial \text{, Col d'Amoss, 3 km WSW, rainforest, litter, 20.30000°S, 164.40000°E, 520 m, 14 Dec. 2004, G. Monteith (QM S95139, PBI\_OON 23487); 1 \$\partial \text{, 1} \$\partial \text{, Gelima, 7 km S, bark, 21.60000°S, 165.96666°E, 730 m, 15 Nov. 2002, G. Monteith (QM S79775, PBI\_OON 22600); 1 \$\partial \text{, 1} \$\partial \text{, Ningua Reserve Camp, litter, 21.00000°S, 165.00000°E, 12-13 Nov. 2001, G. Monteith, C. Burwell (QM S79786, PBI\_OON 22605); 1 \$\partial \text{, Pic du Grand Kaori, rainforest, bark, 22.28333°S, 166.88333°E, 250 m, 22-24 Nov. 2004, G. Monteith, C. Burwell (QM S79793, PBI\_OON 22592); Province Sud: 5 \$\partial \text{, 3} \$\partial \text{, Col d'Amieu, W-slope, bark, 21.61666°S, 165.81666°E, 470 m, 14 Nov. 2002, C. Burwell, G. Monteith (QM 79783, PBI\_OON 22603);

1 ♀, Mt Do, summit, rainforest, bark, 21.75000°S, 166.00000°E, 1000 m, 22 Nov. 2003, G. Monteith (QM S79789, PBl\_OON 22576); 2 ♂, 2 ♀, Mt Mou base, rainforest, bark, 22.08333°S, 166.36666°E, 350 m, 4 Feb. 2004, G. Monteith (QM S79757, PBl\_OON 22634).

Etymology. The specific name is a Latin adjective meaning striated and refers to the striated carapace sides of the species.

Diagnosis. Males resemble those of *O. ndoua* in body shape and having a strongly ventrally bulging bulb but can be distinguished by the striated carapace and the longer medially bent tip (Fig. 25 I). In females the epigastric area posteriorly has large semicircular concavity (Fig. 26G); paddle-like sclerite (PSc) with straight arms.

Description. Male (PBI\_OON 22632, Figs 25A-J). Total length 1.60. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace, broadly oval in dorsal view, pars cephalica slightly elevated in lateral view, top smooth, sides striated; lateral margin straight, with blunt denticles. Eyes, ALE: 0.077, PME: 0.074, PLE: 0.062, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges and additional median scutal ridge. Palpal patella, 0.293 long, 0.171 wide, connection to femur 0.44; bulb ventrally bulging, distal tip long, bent medially in 90° angle (Fig. 25 I).

Female (PBI\_OON 23427, Figs 26A-G). Total length 1.68. Eyes, ALE: 0.093, PME: 0.071, PLE: 0.055. Epigastric area, ventral view, epigastric fold (EF) widely triangular with small knob, posteriorly with large semicircular concavity (Fig. 26F); in dorsal view paddle-like sclerite (PSc) with straight arms; nail-like process (Na) small knob; globular appendix (GAp) elliptical.

**Distribution**. This species is known only from New Caledonia.

### Opopaea touho Baehr, sp. nov. (Figs 27A-J, 28A-G)

Material examined. Holotype ♂: NEW CALEDONIA: Province Nord: Touho TV tower, rainforest, litter, 20.65000°S, 165.21666°E, 400 m, 30 Jan. 2004, G. Monteith (QM S95142, PBI\_OON 22663). Allotype ♀: collected with holotype (QM S79742, PBI\_OON 23428).

Other material examined. NEW CALEDONIA: Province Nord: 2 ♀, Mandjélia, 20.40000°S, 164.53330°E, 700 m, 13 May 1992, R. Raven, G. Ingram, E. Guilbert (QM S37726, PBI\_OON 7172); 1♀, Mandjélia, rainforest, litter, 20.40000°S, 164.53330°E, 700 m, 12 May 1984, G. Monteith, D. Cook (QM S79750, PBI\_OON 22584); 1♀, St.: 292 a Mt. Panie, pente E, 20.55861°S, 164.77444°E, 600 m, 3 Nov. 1988, A. and S. Tillier (MNHN, PBI\_OON 226).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males and females resemble those of *O. burwelli* in having a high shouldered carapace and scuto-pedicel region without additional medial ridge, and cephalothorax with smooth sides, but can be distinguished by the much smaller eyes. Males similarly have a slim cymbium-bulb complex but can be separated by bulb with narrow prolateral tip (Fig. 27 I). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) with evenly bent arms.

Description. Male (PBI\_OON 22663, Figs 27A-J). Total length 1.43. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace broadly oval in dorsal view, high shoulderd, top and sides smooth; lateral margin straight, with blunt denticles. Eyes, ALE: 0.077; PME: 0.066; PLE: 0.056, ALE largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow smooth, posteriorly with two notched tips. Abdomen, scuto-pedicel region higher than diameter of pedicel, with paired strongly curved scutal ridges. Palpal patella 0.265 long, 0.144 wide, connection to femur 0.53; bulb narrow, ventrally barely bulging (Fig. 27G) with short rounded, medially bent tip (Fig. 27 I).

Female (PBI\_OON 23428, Figs 28A-G). Total length 1.65. Eyes, ALE: 0.087; PME: 0.070; PLE: 0.057. Epigastric area, ventral view, epigastric fold (EF) evenly bent with small knob; in dorsal view paddle-like sclerite (PSc) with evenly bent arms (Fig. 28G); nail-like process (Na) long conical; globular appendix (GAp) a small knob.

**Distribution.** This species is known only from the northern part of New Caledonia.

# Opopaea tuberculata Baehr, sp. nov. (Figs 29A-J, 30A-G)

Material examined. Holotype ♂, NEW CALEDONIA: Province Nord: Col d'Amieu, litter, 21.55000°S, 165.83330°E, 440 m, 18 Apr. 2005, G. Monteith (QM S79813, PBI\_OON 22651). Allotype ♀: Province Sud: Mt Do, summit, rainforest, litter, 21.75000°S, 166.00000°E, 1000 m, 20 May 1984, G. Monteith (QM S95144 (QM, PBI\_OON 23483).

Etymology. The specific name is a Latin adjective meaning with a tubercle, which refers to the swelling between coxae VI.

Diagnosis. Males and females were not collected together but the general body shape suggests they belong to the same species. Males resemble those of *O. striata* in having carapace sides striated and lacking high shoulders but can be distinguished by having a tubercle between coxae IV (Fig. 29B) and a narrow, barely bulging bulb (Fig. 29H). In females, the epigastric area in ventral view has epigastric fold (EF) widely triangular, with large semicircular concavity and triangular posterior extension (Fig. 30F, G).

Description. Male (PBI\_OON 22651, Figs 29A-J). Total length 1.31. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow and palpal patella orange brown. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, sides striated; lateral margin straight, with blunt denticles. Eyes, ALE: 0.061; PME: 0.061; PLE: 0.042, ALE, PME subequal, larger than PLE, ALE circular, PME squared, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME

touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow smooth, with small tubercle between coxae IV (Fig. 29B). Abdomen, book lung covers large, ovoid, with longitudinal ridge; scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges and additional median scutal ridge. Palpal patella 0.240 long, 0.130 wide, connection to femur at 0.50; bulb narrow, barely bulging ventrally with tiny medially bent tip (Figs 29 H-J).

Female (PBI\_OON 23483, Figs 30A-G). Total length 1.66. Eyes, ALE: 0.063; PME: 0.052; PLE: 0.046. Epigastric area, ventral view, epigastric fold (EF) widely triangular, with large semicircular concavity and triangular posterior extension (Fig. 30F); in dorsal view paddle-like sclerite (PSc) with completely straight arms (Fig. 30G); nail-like process (Na) long, conical; globular appendix (GAp) with wide hood-shaped anterior part and a long, drop-shaped extension.

Distribution. This species is known only from central New Caledonia.

## SPECIES FROM NEW SOUTH WALES Key to species

-	Females (unknown for <i>O. margareteloffinannae</i> , <i>O. michaeli</i> , <i>O. sturt</i> , <i>O. ursulae</i> 23
	Scuto-pedicel region high, about 1½ diameter of pedicel (Fig. 46G) O. martini Scuto-pedicel region lower
3.	Scuto-pedicel region about diameter of pedicel (as Fig. 39G)
	Palpal cymbium basally separated by seam (Fig. 39H, J)

Paired scutal ridges arched, with additional

median ridge (Figs 53G, 68G) . . . . . . . . . 6

Paired scutal ridges present, median ridge

	absent (Fig. 31G, 41G)8		(Fig. 35 I)
6.	Postepigastric scutum with field of thin, plumose setae (Figs 53C, 68C)7	-	Bulbal tip acute bent dorsally (Fig. 60 I)
-	Postepigastric scutum with no special setae (Fig. 63C)	17.	Bulbal base with 2 strong prolateral spines (Fig. 37H)
7.	Bulbal tip long and narrow (Figs 53H, I)O. ottoi	-	Bulbal base without strong prolateral spines (as Fig. 67 I)
	Bulbal tip broad (Figs 68H, I) O. yorki	18.	Postepigastric scutum with concavity and slightly elevated ridge (Fig. 37C)
	Paired scutal ridges reduced to dots (Fig. 49G)	_	Postepigastric scutum without concavity
-	Paired scutal ridges well developed (Fig. 31G)		(Fig. 45C)O. margaretehoffmannae
9.	Postepigastric scutum with longitudinal line of plumose setae (Fig. 41C)O. linea		Cheliceral fang prolateral margin serrated (Fig. 67H) O. ursulae
-	Postepigastric scutum without plumose		Cheliceral fang not serrated (Fig. 81F) 20
10.	setae (Fig. 59C)		Bulbal tip broad with large prolateral fold striated at top (Fig. 48 I) O. michaeli
	Bulb without spur (Fig. 59F) O. sown	T	Bulbal tip long thin directed medially (Fig. 61 I)
	Scuto-pedicel region about 3/4 of diameter	21.	Bulb medially constricted, femur subbasally connected to patella (Figs 51 H-J)O. nitens
-	of pedicel (as Fig. 43G)	-	Bulb not constricted, femur medially connected to patella (as Figs 57I, J)22
12.	Paired scutal ridges arched, with additional median ridge (as Fig. 43G)	22.	Postepigastric scutum with field of thin, plumose setae (Fig. 57C) O. simplex
-	Paired scutal ridges present, median ridge absent (Fig. 65G) O. temis	_	Postepigastric scutum without different setae (Fig. 55C)
13.	Tip with tiny prolateral incision (Fig. 33 I)	23.	Scuto-pedicel region high, about 1 ½ diameter of pedicel (Fig. 47E) O. martini
-	Tip elongated with deep prolateral incision (Fig. 43 I)		Scuto-pedicel region lower24
14.	Scuto-pedicel region about ½ of diameter,	24.	Scuto-pedicel region about diameter of pedicel (as Fig. 64E)25
_	scutal ridges present (Fig. 60G)15 Scuto-pedicel region less than ½ of	_	Scuto-pedicel region ¾ of diameter or less (as Fig. 66E)
	diameter, scutal ridges weak or absent (as Figs 51G, 57G)	25.	Paired scutal ridges arched, with additional median ridge (as Fig. 54E)
15.	Paired scutal ridges slightly arched, connected medially (Fig. 35G)16	-	Paired scutal ridges present, median ridge absent (as Fig. 42E)
-	Paired scutal ridges not connected medially (Fig. 37G)	26.	Carapace high shouldered, abdomen broadly oval (as Fig. 54B)
16.	Bulbal tip short rounded medially striated	_	

	gated (Figs 64A, B) O. sylvestrella	37. Eyes reduced, barely visible (Fig. 38A)
	PME: 0.072; PLE: 0.059 (Fig. 54D) O. ottoi PME: 0.076; PLE: 0.066 (Fig. 69D) . O. yorki	- Eyes well developed (Fig. 36A)O. bushblitz
	Paired scutal ridges well developed (as Fig. 42E)	38. Epigynal area with semicircular excavation between apodemes (Fig. 58G) O. simplex
-	Paired scutal ridges reduced to dots (Fig. 50E)	- Epigynal area without semicircular excavation (as Fig. 56G)
29.	Paired scutal ridges strong, connected at middle (Fig. 42E) O. linea	39. Chitinized area with small medial knob (Fig. 52F)
-	Paired scutal ridges weak, not connected at middle (as Fig. 40E)30	<ul> <li>Chitinized area with long triangular median extension (Fig. 56G) O. plana</li> </ul>
30.	Epigastric fold with long triangular extension (Fig. 40G)31	Opopaea acuminata Baehr, sp. nov. (Figs 31A-J, 32A-G)
-	Epigastric fold with long rounded extension (Fig. 32G)	Material examined. Holotype &: AUSTRALIA: New South Wales: Doubleduke State Forest, litter, 29.14150°S, 153.17150°E, 1 Feb. 1997, A. York (AM
31.	Globular appendix (GAp) without hood but with keel-like extension (Baehr, 2011: fig. 51)	KS102836, PBI_OON 20477). Allotype ♀: Bungawalbin State Forest, litter, 29.05633°S, 153.10716°E, 1 Feb. 1997, A. York (AM KS102821, PBI_OON 20484).
-	Globular appendix (GAp) with wide hood and long, triangular extension (Fig. 40G)	Other material examined. AUSTRALIA: New South Wales: 1 &, Banyabba State Forest, litter, 29.38000°S, 152.99777°E, 84m, 1 Feb. 1997, A. York (AM KS102723, PBI_OON 19369); 1 &, same data (AM KS102723, PBI_
32.	Scuto-pedicel region about ¾ of diameter of pedicel (as Fig. 66E)	OON 19369); 1 &, 1  same data except 29.39050°S, 152.95900°E (AM KS102687, PBI_OON 19434); 1  same data (AM KS102666, PBI_OON 19460); 1  d,
-	Scuto-pedicel region about ½ of diameter of pedicel or less (as Fig. 38E)	same data (AM KS102654, PBI_OON 19464); 1 d, same data (AM KS102662, PBI_OON 19470); 2 d, same data except 1 Jan. 1997, A. York (AM KS102828,
33.	Paired scutal ridges arched, with additional median ridge (as Fig. 34E)	PBI_OON 20465); 1 ♂, same data (AM KS102829, PBI_OON 20468); 2 ♂, same data (AM KS102815, PBI_OON 20471); 1 ♂, Beaury State Forest, Koorelah
-	Paired scutal ridges present, median ridge absent (Fig. 66E)	Ra., Tucker Box Road, 28.47233°S, 152.40183°E, 23 Mar.–9 May 1999, S. Lassau, C. Lemann (AM KS85277, PBI OON 20200); 1 , Bungawalbin
34.	Postepigastric scutum elongate (Fig. 34C)	State Forest, litter, 29.06055°S, 153.11194°E, 1 Feb. 1997, A. York (AM KS102725, PBI_OON 19355); 2
-	Postepigastric scutum short (Fig. 44C)	d, same data (AM KS102722, PBI_OON 19357); 2 d, same data (AM KS102721, PBI_OON 19362); 1 e, same data (AM KS102737, PBI_OON 19363); 1 e, same data (AM KS102735, PBI_OON 19365); 1
35.	3 Scuto-pedicel region about ½ of diameter, scutal ridges present (as Fig. 38E)36	d, same data (AM KS102730, PBI_OON 19368); 2 d, same data (AM KS102822, PBI_OON 20485); 1 e, same data (AM KS102822, PBI_OON 20485);
-	Scuto-pedicel region less than ½ of diameter, scutal ridges weak (as Fig. 58G)38	3 ♂, same data except 29.03500°S, 153.15183°E (AM KS102698, PBI_OON 19387); 1 ♂, same data (AM KS102706, PBI_OON 19388); 1 ♂, same data
36.	Paired scutal ridges slightly arched, connected medially (as Fig. 38E)37	(AM KS102700, PBI_OON 19390); 1 $\eth$ , same data (AM KS102683, PBI_OON 19436); 1 $\eth$ , same data (AM KS102682, PBI_OON 19447); 1 $\eth$ , same data
-	Paired scutal ridges not connected medially (Fig. 62E)	(AM KS102678, PBI_OON 19453); 1 $\eth$ , same data (AM KS102673, PBI_OON 19457); 2 $\circlearrowleft$ , same data (AM KS102660, PBI_OON 19465); 1 $\eth$ , same data

except 29.05633°S, 153.10716°E (AM KS102818, PBI\_OON 20481); 1 Å, same data (AM KS102825, PBI\_OON 20487); 1 Å, Devils Pulpit State Forest, forest, litter, 29.27066°S, 153.17166°E, 1 Feb. 1997, A. York (AM KS102680, PBI\_OON 19454); 1 Å, same data (AM KS102656, PBI\_OON 19479); 1 3, Doubleduke State Forest, litter, 29.13833°S, 153.19000°E, 1 Feb. 1997, A. York (AM KS102720, PBI\_OON 19372); 1 &, same data (AM KS102689, PBI\_OON 19443); 2 \$\,\text{o}\$, same data (AM KS102688, PBI\_OON 19449); 1 &, same data except 29.17266°S, 153.18566°E (AM KS102830, PBI\_OON 20467); 2 & Gibberagee State Forest, forest, litter, 29.32166°S, 153.10483°E, 1 Feb. 1997, A. York (AM KS102731, PBI\_OON 19361); 1 &, same data (AM KS102690, PBI\_OON 19451); 2 d, same data (AM KS102676, PBI\_OON 19456); 1 ♂, 1 ♀, same data (AM KS102661, PBI\_OON 19462); 1 d, same data (AM KS102671, PBI\_OON 19475); 2 3, Mororo State Forest, litter, 29.31766°S, 153.23800°E, 1 Feb. 1997, A. York, 2 ♂ (AM KS102727, PBI\_OON 19356); 1 ♂, Myrtle State Forest, litter, 29.19200°S, 153.01833°E, 1 Feb. 1998, A. York (AM KS102820, PBI\_OON 20483); 1 d, Road to Coomba, 8.9 km SW of Menindee, 32.42433°S, 142.33866°E, 30 Nov.-19 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77538, PBI\_ OON 19578).

Etymology. The specific name is a Latin adjective, meaning sharp, pointed, refering to the palpal spur on the baso-median part of the cymbium.

Diagnosis. Males resemble those of *O. calcaris* from New Caledonia in having a palpal spur but can easily be separated from all other males of New South Wales by well developed palpal spur on baso-median part of cymbium (Fig. 31 I). Females have epigastric area in dorsal view a paddle-like sclerite (PSc) with straight arms, slightly bent at the end (Fig. 32G).

Description. Male (PBI\_OON 20477, Figs 31A-J). Total length 1.40. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated. Eyes, ALE: 0.076; PME: 0.075; PLE: 0.067, ALE largest, ALE circular, PME squared; posterior eye row straight from above, procurved from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel

region about diameter of pedicel, with straight paired scutal ridges. Palpal patella, 0.291 long, 0.159 wide, connection to femur at 0.46; cymbium basally with nail-shaped prolateral apophysis, bulb ventrally slightly bulging, with long spoon-shaped medially bent tip.

Fenale (PBI\_OON 20484, Figs: 32A-G). Total length 1.53. Eyes, ALE: 0.071; PME: 0.061; PLE: 0.054. Epigastric area, ventral view, epigastric fold (EF) with small semicircular concavity and small triangular knob; in dorsal view paddle-like sclerite (PSc) with straight arms, slightly bent at the end Fig. 32G); nail-like process (Na) elongated, conical; globular appendix (GAp) a long, drop-shaped extension.

**Distribution.** This species is known only from New South Wales.

Opopaea addsae Baehr & Smith, sp. nov. (Figs 33A-J, 34A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Budawang National Park, Western Distributor Road, 35.52400°S, 150.02583°E, 16 Mar. 1999, J. Tarnawski, S. Lassau (AM KS68573, PBI\_OON 07704). Allotype ♀: collected with holotype (AM KS117918, PBI\_OON 23553).

Other material examined. AUSTRALIA: New South Wales: 1 3, 300 m S of jnct North Head and Carls Mtn Roads, Murramarang National Park, 35.68483°S, 150.25716°E, 17 Mar. 1999, L. Wilkie, R. Harris (AM KS66905, PBI\_OON 7564); 1 ♀, 32 km NW of Batemans Bay on Highway 54, 35.55166°S, 149.98900°E, 16 Mar. 1999, J. Tarnawski, S. Lassau (AM KS68575, PBI\_OON 7710); 1 ♀, 32 km NW of Batemans Bay on Highway 54, 35,55166°S, 149.99033°E, 16 Mar. 1999, J. Tarnawski, S. Lassau (AM KS64767, PBI\_OON 19613); 1 &, Beecroft Reserve, 33.75000°S, 151.06666°E, 10 May 2002, J. Noble (AM KS79740, PBI\_OON 20206); 1 3, same data except 3 June 2001, J. Noble (AM KS72871, PBI\_OON 20370); 1 &, Buckenbowra State Forest, No Name Fire Trail, 35.63666°S, 149.98966°E, 15 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64759, PBI\_OON 19614); 1 \(\text{Q}\), Budawang National Park, Western Distributor Road, 35.52400°S, 150.02583°E, 16 Mar. 1999, J. Tarnawski, S. Lassau (AM KS64764, PBI\_OON 19619); 1 3, 1 9, same data (AM KS119747, PBI\_OON 23552); 1 9, Bungawalbin State Forest, 29.03500°S, 153.15183°E, Feb. 1998 A. York (AM KS74366, PBI\_OON 7501); 1 ♂, Cabbage Tree Fire Trail, Buckenbowra State Forest, 35.62516°S, 150.01866°E, 15 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64757, PBI\_OON 19609); 1 3. Coomerang Road, Dampier State Forest, 36.05950°S,

149.78416°E, 11 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64756, PBI\_OON 19618); 2 Å, Corn Trail Road, Buckenbowra State Forest, 35.55716°S, 150.00533°E, 16 Mar. 1999, J. Tarnawski, S. Lassau (AM KS68212, PBI\_OON 7616); 1 ♀, same data (AM KS64763, PBI\_OON 19611); 2 ♀, Irishman State Forest, Belbucca Road, 1.5 km from Middle Ridge Road junction, 30.54300°S, 152.66900°E, 24 Nov. 1999, M. Gray, G. Milledge, H. Smith (AM KS61538, PBI OON 20579); 1 Q, Inct of Carls Mt and North Head Roads, Murramarang National Park, 35.68483°S, 150.25716°E, 17 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64766, PBl\_OON 19610); 1 &, Kuringgai Chase National Park, nr Challenger Track, West Head, 33.58833°S, 151.27166°E, 24 Nov. 1992 (AM KS51305, PBI\_OON 20538); 1 Å, Macquarie Road, Buckenbowra State Forest, 35.63483°S, 149.88600°E, 16 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64755, PBI\_OON 19617); 1 &, Mt Belmore State Forest, forest, litter, 29.10916°S, 152.75866°E, 1 Feb. 1997, A. York (AM KS102677, PBI\_OON 19448); 1 & Muogamarra Nat Res, Pacific HWY, 0.7 km SE Bird Gully Swamp, 33.55700°S, 151.18583°E, 16 Dec. 1999, M. Gray, G. Milledge, H. Smith (AM KS63322, PBI\_OON 20554); 1 ♂, 1 ♀, Murramarang National Park, 1.6 km along Richmond Beach Road, 35.67516°S, 150.28366°E, 17 Mar. 1999, L. Wilkie, R. Harris (AM KS66922, PBl\_OON 7560); 1 3, Murramarang National Park, along Richmond Beach Road from jnct, 35.67583°S, 150.27583°E, 1400 m, 17 Mar. 1999, L. Wilkie, R. Harris (AM KS67225, PBI\_OON 7531); 2 Q, Murramarang National Park, 250 m along Road to Richmond and Oaky beaches, 34.69200°S, 150.27283°E, 17 Mar. 1999, L. Wilkie, R. Harris (AM KS67220, PBI\_OON 7530); 2 ♂, 1 ♀, Murramarang National Park, North Head Road, 35.67516°S, 150.25883°E, 17 Mar. 1999, R. Harris, H. Smith (AM KS68574, PBI\_OON 7712); 2 \( \text{Q}, \text{N} \) side of Durras Road, 1.9 km W of Durras, 35.65350°S, 150.27033°E, 17 Mar. 1999, J. Tarnawski, S. Lassau (AM KS68577, PBI\_OON 7696); 1 &, Nature Reserve, Mills Bay, Narooma, 36.20416°S, 150.12100°E, 10 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64758, PBl\_OON 19612); 1 Q, Nerrigundah Mt Road, Dampier State Forest, 36.12516°S, 149.95533°E, 10 Mar. 1999, R. Harris, H. Smith (AM KS68578, PBI\_OON 7695); 2 3, No Name Fire Trail, Buckenbowra State Forest. 35.63850°S, 150.00166°E, 15 Mar. 1999, L. Wilkie, R. Harris, H. Smith (AM KS64760, PBI\_OON 19621); 1 9, North Head Road, Murramarang National Park, 35.70416°S, 150.27166°E, 17 Mar. 1999, L. Wilkie, R. Harris (AM KS66937, PBI\_OON 7554); 1 3, 3 9, Princes Highway, Corunna State Forest, 36.27466°S, 150.12216°E, 12 Mar. 1999, R. Harris, H. Smith (AM KS68216, PBI\_OON 7621); 1♀, Sofjnct Quart Pot and Ross Ridge Roads, Mogo, 35.75466°S, 150.07400°E, 8 Mar. 1999, J. Tarnawski, S. Lassau (AM KS64762, PBI\_OON 19620); 2 ♂, 11 ♀, S side of Durras Road, 2 km W of Durras, 35.65650°S, 150.26866°E, 17 Mar. 1999, J. Tarnawski, S. Lassau (AM KS68217, PBI\_OON 7662); 2 ♂, Sydney Catchment Authority,

Darkes Forest Road-Fire Road No. 9E junction, near locked gate, 34.19150°S, 150.90600°E, 8 Dec. 1999, M. Shea (AM KS63404, PBI\_OON 20562); 1 ♀, T-Ridge Road, Kioloa State Forest, 35.55466°S, 150.30716°E, 17 Mar. 1999, J. Tarnawski, S. Lassau (AM KS64765, PBI\_OON 19616); 1 ♂, Woronora Dam Catchment, Fire Road No. 9, 34.19216°S, 150.90533°E, 14 Nov. 2000, G. Milledge, H. Smith (AM KS69370, PBI\_OON 7608).

Etymology. This species is named for Helen Smith's sister-in-law, Margaret Smith (née Adds) for her support of conservation organisations.

Diagnosis. Males and females resemble those of *O. yorki* in body shape and males also have palpal bulb with prolaterally incised distal tip. Males can be distinguished by the elongated slim bulbal tip (Figs 33H, I). In females the epigastric area in dorsal view has a paddle-like sclerite (PSc) with straight arms, slightly bent at the end (Fig. 34G).

Description. Male (PBI\_OON 07704, Figs 33A-J). Total length 1.63. Prosoma, mouthparts, abdominal scutae and palpal patella orange brown, legs pale orange. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.085; PME: 0.073; PLE: 0.058, ALE largest, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scutopedicel region lower than diameter of pedicel, with paired curved scutal ridges and additional median distal ridge. Palpal patella, 0.336 long, 0.206 wide, connection to femur at 0.49; bulb ventrally slightly bulging with elongated, retrolaterally curved and prolaterally incised distal tip (Fig. 33 I).

Female (PBI\_OON 23553, Figs 34A–G). Total length 1.93. Eyes, ALE: 0.084; PME: 0.072; PLE: 0.056. Epigastric area ventral view, with wide slit-like opening; epigastric fold (EF) with tiny semicircular concavity; in dorsal view paddle-like sclerite (PSc) with straight arms, slightly bent at the end (Fig. 34G); nail-like process (Na)

small knob; globular appendix (GAp) a short knob.

**Distribution.** This species is known from coastal New South Wales.

### *Opopaea bushblitz* Baehr, sp. nov. (Figs 35A–J, 36A–G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Koorawatha Nature Reserve, eucalypt forest, litter, 34.03194°S, 148.59972°E, 437 m, 15 Nov. 2010, B. Baehr (AM KS116477, PBI\_OON 23527). Allotype ♀: collected with holotype (AM KS116478, PBI\_OON 23528).

Other material examined. AUSTRALIA: New South Wales: 1 &, Bank of Merri Merri Creek, 2.5 km N of Quambone, 30.90633°S, 147.85933°E, 24 Nov.-14 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77489, PBI\_OON 20166); 1 &, same data (AM KS77491, PBI\_OON 20168); 1 &, ca. 40 km along Bruxner Highway from Bonshaw to Tenterfield; 150 m S of road, 29.00716°S, 151.50416°E, 22 Nov.-13 Dec. 2001, Michael G. Elliott (AM KS83451, PBI\_OON 19765); 1 ♀, same data (AM KS83458, PBI\_OON 19769); 1 ♂, same data (AM KS83448, PBI\_OON 19772); 1 ♀, same data (AM KS83452, PBI\_OON 19773); 1 3, 1 ♀, same data (AM KS83439, PBI\_OON 19776); 1 ♂, Carinda-Walgett Road at turnoff to 'Allawa' Station, 30.12350°S, 147.93983°E, 25 Nov.-15 Dec. 1999, L. Wilkie et al. (AM KS77499, PBI\_OON 20164); 1 &, Castlereagh Highway, 1.7 km N of junction with Gwydir Highway, 29.89233°S, 148.15933°E, 13 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77508, PBl\_OON 20161); 2 ♂, Crown Res., 8.9 km along Bukkulla-Ashford Road, 29.42650°S, 151.06966°E, 22 Nov.–13 Dec. 2001, H. Doherty, M. Elliott (AM KS83445, PBI\_OON 19770); 1 &, Gwydir Highway, 33.4 km NE of Walgett, opposite Calgary turnoff, 29.68483°S, 148.35833°E, 21 Nov.-11 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77507, PBI\_OON 20169); 1 &, Koorawatha Nature Reserve, eucalypt forest, litter, 34.03194°S, 148.59972°E, 437m, 15 Nov. 2010, B. Baehr (AM KS116479, PBI\_OON 23529); 1 ♀, Kwiambal National Park, E side of park, 150 m S of road, 29.17433°S, 151.00300°E, 22 Nov.-13 Dec. 2001, H. Dohert, M. Elliott (AM KS83456, PBI\_OON 19767); 1 ♀, same data (AM KS83455, PBI\_OON 19775); 1 ♀, Linton Nature Reserve, 700 m  $\overline{W}$  of Reserve entrance, 30.45633°S, 150.88533°E, 18 Nov.-9 Dec. 2001, H. Doherty, M. Elliott (AM KS83450, PBI\_OON 19771); 1 ♂, 1 ♀, Linton Nature Reserve, SW corner of Reserve, 60 m E of road, 30.45750°S, 150.85766°E, 18 Nov.-9 Dec. 2001, H. Doherty, M. Elliott (AM KS83438, PBI\_OON 19785); 1 ♀, Severn State Forest, Atholwood Loop Road, 29.07133°S, 151.00883°E, 22 Nov.-13 Dec. 2001, L. Wilkie, H. Smith (AM KS83604, PBI\_OON 19127); 1

♂, same data (AM KS83442, PBI\_OON 19766); 1 ♂, same data (AM KS83444, PBI\_OON 19774).

Etymology. The specific name is a noun in apposition in honour of the Australian Biological Resources Study's BushBlitz program which supports taxonomic work and field excursions (www.bushblitz.org.au).

Diagnosis. Males and females resemble those of *O. gerstmeieri* in having a flat body, with scuto-pedicel region less than ½ of diameter of pedicel and paired scutal ridges slightly arched, connected medially. Males can be distinguished by the short medially striated bulbal tip (Fig. 35H). In females the epigastric area in ventral view has epigastric fold (EF) with small semicircular concavity and tiny triangular knob (Figs 36F, G).

Description. Male (PBI\_OON 19774, Figs 35A-I). Total length 1.18. Prosoma, mouthparts, abdominal scutae and legs pale orange. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral sides striated; lateral rebordered, with denticles. Eyes small, ALE: 0.052; PME: 0.053; PLE: 0.046, PME largest, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrows with rows of small pits. Abdomen, scuto-pedicel region less than ½ diameter of pedicel, with paired curved scutal ridges connected at middle. Palpal patella 0.220 long, 0.117 wide, connected to femur at 0.40; bulb ventrally strongly bulging, tip short spatulate, medially striated, 'fenestra' wide (Figs 35H, I).

Female (PBl\_OON 19769, Figs 36A-G). Total length 1.47. Eyes, ALE: 0.056; PME: 0.052; PLE: 0.045, ALE largest. Epigastric area, ventral view, epigastric fold (EF) with small semicircular concavity and tiny triangular knob; in dorsal view paddle-like sclerite (PSc) with straight arms, bent at the end; náil-like process (Na) long conical; globular appendix (GAp) a short knob-shaped.

**Distribution.** This species is known only from inland New South Wales.

### Opopaea gerstmeieri Baehr, sp. nov. (Figs 37A-J, 38A-G)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Girilambone Road, 5.4 km S of Monkey Bridge, Casuarina, litter, 30.89200°S, 147.05533°E, 13, Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS116464, PBI\_OON 23608). Allotype ♀: collected with holotype (AM KS67747, PBI\_OON 07588).

Other material examined. AUSTRALIA: *New South Wales*: 1 &, 23.5 km N of Mulwala, 'Savernake' Station, 35.77416°S, 146.02433°E, D. Freudenberger (AM KS84560, PBI\_OON 20198); 1 &, Coleambally Irrigation Area, 34.92633°S, 146.05833°E, 16 Dec. 1998, L. Wilkie, S. Priday (AM KS67715, PBI\_OON 7590); 1 &, Coleambally Irrigation Area, 34.93500°S, 145.77516°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS68929, PBI\_OON 7688); 1 &, Coleambally Irrigation Area, 35.00033°S, 145.82483°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS68938, PBI\_OON 7693); 1 &, Pooginook Wildlife Refuge, 34.85916°S, 145.70083°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS67735, PBI\_OON 07597); 1 &, same data (AM KS67735, PBI\_OON 07597); 1 &, same data (AM KS689264, PBI\_OON 7618); 1 \$\, \text{Pooginook Wildlife Sanctuary, 34.90383°S, 145.66833°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS68955, PBI\_OON 7700); 1 \$\, \text{Pooglinook Wildlife Refuge, 34.87100°S, 145.68733°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS68980, PBI\_OON 7706).

Etymology. This species is named for colleague and friend Prof. R. Gerstmeier for his love of the Australian fauna.

Diagnosis. Males and females resemble those of *O. busliblitz* in having a flat body but can be distinguished by strongly reduced eyes; postepigastric scutum with longitudinal concavity covering ½ of its lengths and weak longitudinal ridge; lateral apodemes ½ as long as postepigastric scutum. In males the palpal bulb has two strong basomedial setae (Fig. 37H), 'fenestra' ending in a large fold, and with a short medially bent tip (Fig. 37 I). In females the epigastric area in ventral view has epigastric fold (EF) with well developed triangular extension and small triangular concavity (Fig. 38 F–G).

Description. *Male* (PBI\_OON 23608, Figs 37A-J). Total length 1.21. Prosoma, mouthparts, abdominal scutae and palpal patella pale orange, legs

yellow. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes reduced to pale spots, ALE: 0.054; PME: 0.053; PLE: 0.037, ALE largest, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum longer than wide, with barely visible radial furrows between coxae I-II, II-III, III-IV, furrow smooth. Abdomen, scuto-pedicel region less than 1/2 of diameter of pedicel, with paired medially connected scutal ridges; postepigastric scutum weakly sclerotized, with longitudinal concavity covering 1/2 of its length and weak longitudinal ridge; lateral apodemes 1/2 as long as postepigastric scutum; concavity covered with short setae. Palpal patella 0.206 long, 0.115 wide, connection to femur at 0.43; bulb ventrally slightly bulging, with two strong basomedial setae, 'fenestra' ending in large fold, tip short, medially bent.

Female (PBI\_OON 07588, Figs 38A-G). Total length 1.26. Eyes, ALE: 0.050; PME: 0.045; PLE: 0.033. Epigastric area, ventral view, epigastric fold (EF) with well-developed triangular extension and small triangular concavity; in dorsal view paddle-like sclerite (PSc) strongly bent half way; nail-like process (Na) with hood and small conical end; globular appendix (GAp) a long, triangular extension.

Distribution. This species is known only from south and central New South Wales.

## *Opopaea lebretoui* Baehr, sp. nov. (Figs 39A-J, 40A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Lower Murray-Darling Region, Boolaboolka Station, shrubs, litter, 32.66850°S, 142.90183°E, 25-29 Oct. 1999, M. Le Breton (AM KS116474, PBI\_OON 20474). Allotype ♀: Lower Murray-Darling Region, Bidura Station, chenopod mallee shrubland, litter, 34.10950°S, 143.22116°E, 6-10 Mar. 2000, M. Le Breton (AM KS116473, PBI\_OON 07596).

Other material examined. AUSTRALIA: *New South Wales*: 1 ♂, Lower Murray-Darling Region, Bidura Station, 34.10950°S, 143.22116°E, 6-10 Mar. 2000, M. Le Breton (AM KS91758, PBI\_OON 20154); 1 ♂, Tapio Station, 34.03916°S, 142.06783°E, 20-24 Mar. 2000, M. Le Breton (AM KS91667, PBI\_OON 20153); 1 ♂, Willotia Station, 32.83500°S, 142.28816°E, 14-18 Feb. 2000, M. Le Breton (AM KS91560, PBI\_OON 20151); 3 ♂, 2 ♀, Willotia Station, 32.88566°S, 142.23500°E, 14-18 Feb. 2000, M. Le Breton (AM KS91676, PBI\_OON 20152).

Etymology. This species is named for Matthew Le Breton who collected the types as well as many other Oonopidae in the Lower Murray Darling Survey from which this material came.

Diagnosis. Males and females resemble those of *O. martini* in having a high abdomen with scuto-pedicel region higher than diameter of pedicel, but can be distinguished by the larger eyes, the presence of lateral extensions on pedicel, the scuto-pedicel region with pairs of scutal ridges (Fig. 39C). Males similarly have a strongly bulging palpal bulb with a distal patch of plumose setae, but can be distinguished by the bulbal tip with small prolateral incision (Fig. 39 I). In females the epigastric area in ventral view has epigastric fold (EF) with well developed triangular extension and small triangular concavity (Figs 40F, G).

Description. Male (PBI\_OON 20474, Figs 39A-J). Total length 1.34. Prosoma, mouthparts, abdominal scutae and legs orange, eyes with black border. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes, ALE: 0.056; PME: 0.062; PLE: 0.053, PME largest, ALE circular, PME squared, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region higher than diameter of pedicel with paired curved scutal ridges. Palpal patella 0.238 long, 0.138 wide, connection to femur at 0.40; bulb ventrally strongly bulging, with distal

patch of plumose setae, tip medially bent, with small prolateral incision.

Female (PBI\_OON 07596, Figs 40A-G). Total length 1.47. Eyes, ALE: 0.065; PME: 0.067; PLE: 0.048. Epigastric area, ventral view, epigastric fold (EF) with well developed triangular extension and small triangular concavity; in dorsal view paddle-like sclerite (PSc) with straight arms, bent at the end; nail-like process (Na) small drop-shaped; globular appendix (GAp) with wide hood and long, triangular extension (Fig. 40F, G).

**Distribution.** This species is known only from the Lower Murray-Darling Region of central New South Wales.

#### Opopaea linea Baehr, sp. nov. (Figs 41A-J, 42A-G)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Mt Cotton, Sandy Creek Cons Area, litter, 40 m, 27.98333°S, 153.40000°E, 1-21 Dec. 2009, R. Raven (QM S95145, PBI\_OON 23459). Allotype ♀: collected with holotype (QM S88227, PBI\_OON 23460).

Other material examined. AUSTRALIA: New South Wales: 1 9, 'Wyninebah' Station, 0.3 km past stockyards, 300 m E of Road, 30.35833°S, 147.48750°E, 25 Nov.-15 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77440, PBI\_OON 7781); 1 Q, 0.7 km N of turnoff to Wyndabyne Station, Warren-Quambone Road, 31.13533°S, 147.84100°E, 13 Dec. 1999, L. Wilkie et al. (AM KS77448, PBI\_OON 7785); 2 Q, same data (AM KS77447, PBl\_OON 7803); 1 3, 1.05 km ESE of Murrawombie Bridge, Quinine Park, 31.17016°S, 147.13466°E, 13 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77433, PBI\_OON 7792); 1 d, 150 m N of bridge over Gingham Watercourse S of Weemelah, 29.22166°S, 149.26733°E, 26 Nov.-16 Dec. 1999, L. Wilkie et al. (AM KS77456, PBI\_OON 7791); 1 ♀, 16.3 km NE along Coonamble-Barradine Road, Nebea Station, 30.90133°S, 148.54283°E, 24 Nov.-14 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM K577436, PBI\_OON 7795); 1 ♀, same data (AM K577435, PBI\_OON 7797); 1 ♀, 1 km along access road to Cawwell Station, 29.05850°S, 147.06716°E, 26 Nov.-16 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77462, PBI\_OON 7793); 1 ♀, 2.5 km NW of Gin Gin on Road to 'Riverview' station, 31.90216°S, 148.05683°E, 22 Nov.-12 Dec. 1999, L. Wilkie et al. (AM KS77442, PBI\_OON 7805); 1 Q, 200 m E of Mungindi Road, 3.3 km past turnoff to Abeddar Station, 29.18666°S, 148.89066°E, 27 Nov.-17 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77441, PBl\_OON 7804); 1 ♂, 2 ♀, 7.5 km NW of Gin Gin,

Wambianna Station, 31.87116°S, 148.02266°E, 22 Nov.-12 Dec. 1999, L. Wilkie et al. (AM KS77443, PBI\_OON 7782); 1 &, same data (AM KS87260, PBI\_ OON 20194); 1 ♀, same data (AM KS77444, PBI\_OON 20194); 1 ♂, 9.2 km N of Carinda, Douglas Park Station, 30.40816°S, 147.74166°E, 25 Nov.-15 Dec. 1999, L. Wilkie et al. (AM KS77452, PBI\_OON 7783); 1 ♂, Attunga State Forest, 30.92333°S, 150.92350°É, 16 Nov.-7 Dec. 2001, G. Carter (AM KS83593, PBI\_OON 7666); 1 Q, Attunga State Forest, pass SE of Attunga State Forest, back road, 30.97216°S, 150.92466°E, 16 Nov.-7 Dec. 2001, G. Carter (AM KS83600, PBI\_OON 7677); 1 \, Attunga State Forest, S of Ardey Range, W edge of State Forest, opp. 'Tralee', 30.93333°S, 150.90316°E, 15 Nov.-6 Dec. 2001, G. Carter (AM KS83598, PBI\_OON 7669); 1 Q, Attunga State Forest, SE side of State Forest, É of road up slope, 30.94016°S, 150.92483°E, 16 Nov.- 07 Dec. 2001, G. Carter (AM KS83599, PBI\_OON 7664); 1 d, Barraba-Bundarra Road, W bank of Ironbark Ck, 30.27150°S, 150.79050°E, 18 Nov.-9 Dec. 2001, L. Wilkie, H. Smith (AM KS83592, PBI\_OON 7667); 1 \,Q, between Kootingal and Tamworth, crown res. 200 m past tip, 31.06750°S, 151.03400°E, 15 Nov.-6 Dec. 2001, G. Carter (AM KS83597, PBI\_OON 7665);  $1 \, \mathcal{E}$ , 2  $\mathcal{P}$ , same data (AM KS83591, PBI\_OON 7680); 1 &, Cameron Lane, 4.6 km W of Burren-Pokataroo Road jctn, 29.80950°S, 148.94166°E, 30 Nov.-20 Dec. 1999, L. Wilkie et al. (AM KS77457, PBI\_OON 7778); 1 &, Carinda-Walgett Road at turnoff to 'Allawa' Station, 30.12350°S, 147.93983°E, 25, Nov.-15 Dec. 1999, L. Wilkie et al. (AM KS77451, PBI\_OON 7794); 1 &, Castlereagh Highway, 12 km N of junction with Gwydir Highway, 29.80900°S, 148.12600°E, 13 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77459, PBI\_OON 7796); 1 3, Castlereagh Highway, 5.75 km N of junction with Gwydir Highway, 29.87000°S, 148.13866°E, 13 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77460, PBI\_OON 7784); 1 &, same data (AM KS77461, PBI\_OON 7801); 1 &, Castlereagh Highway, 5 km S of entrance to Bairnkine Station, 29.81833°S, 148.12200°E, 26 Nov.-16 Dec. 1999, L. Wilkie et al. (AM KS77453, PBI\_OON 7786); 1 3, same data (AM KS77454, PBI\_OON 7789); 1 &, same data (AM KS77455, PBI\_OON 7799); 1 &, Coleambally Irrigation Area, 34.93500°S, 145.77516°E, 28 Apr. 1999, L. Wilkie, S. Priday (AM KS67611, PBL\_OON 7642); 1 6, Coleambally Irrigation Area, 34.73766°S, 145.93800°E, 15 Dec. 1998, L. Wilkie, S. Priday (AM KS68973, PBI\_OON 7715); 1 &, Coonamble-Trembone Road, 2.4 km N of Gilgooma turnoff, 30.67216°S, 148.45033°E, 24 Nov.-14 Dec. 1999, L. Wilkie et al. (AM KS77449, PBI\_OON 7798), 1 ♀, Crown Res., 2 km along Tintinhull Road from Danuka Road, 31.06700°S, 150.98750°E, 15 Nov.-6 Dec. 2001, H. Doherty, M. Elliott (AM KS83596, PBI\_OON 7673); 2 ♀, Darling River, 1.5 km S of 'Trilby' Station homestead, 30.65116°S, 144.93350°E, 1–21 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77458, PBI OON 7777); 1 ♀, Gidginbilla Station, off Castlereagh Highway at Combogolong Bridge, 30.42266°S,

148.20300°E, 24 Nov.-14 Dec. 1999, L. Wilkie et al. (AM KS77450, PBI\_OON 7790); 1 ♀, Girilambone Road, 5.4 km S of Monkey Bridge, 30.89200°S, 147.05533°E, 13 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77434, PBI\_OON 7806); 1 &, Green and Banders Road, 3.7 km N of Carinda-Brewarrina Road jnct, 30.38983°S, 147.48733°E, 25 Nov.-15 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77439, PBI\_OON 7800); 1 Q, Middle of Attunga State Forest, end of Archery Trail, 30.92583°S, 150.92000°E, 16 Nov.-7 Dec. 2001, G. Carter (AM KS83601, PBI\_ OON 7668); 2 3, most northern part of Attunga State Forest, far end of back trail, south of The Horse Arm Creek, 30.91816°S, 150.92316°E, 16 Nov.- 07 Dec. 2001, G. Carter (AM KS83594, PBI\_OON 7663); 1 &, Oaky Creek Nature Reserve, S boundary of Reserve, 31.11700°S, 150.61900°E, 17 Nov.-8 Dec. 2001, G. Carter (AM KS83595, PBI\_OON 7686); 1 &, Pilliga region, 'Teranna', 30.03733°S, 148.75783°E, I. Oliver (AM KS81024, PBI\_OON 20192); 1 ♂, S side of Coonamble-Barradine Road, opposite Pilliga turnoff, 30.94233°S, 148.42483°E, 24 Nov.-14 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77437, PBI\_OON 7776); 1 &, Sturt National Park, 29.13333°S, 141.50000°E, 25 Sept. 1997, G. Osler (AM KS85501, PBI\_OON 20202); 1 &, Trilby Station, Darling River, 2.7 km S of homestead, 30.64133°S, 144.92083°E, 1-21 Dec. 1999, F. Christie et al. (AM KS77463, PBI OON 7787); 1 9, Warren-Carinda Road. 7.1 km W of Mt. Foster Road. sign, 31.21866°S, 147.58333°E, 23 Nov.-13 Dec. 1999, L. Wilkie et al. (AM KS77446, PBI\_OON 7780); 1 3, Warren-Carinda Road. 7.1 km W of Mt. Foster road sign, 31.21866°S, 147.58333°E, 23 Nov.-13 Dec. 1999, L. Wilkie (AM KS77445, PBI\_OON 7802); 1 \, Wyrrabalong National Park, 33.27450°S, 151.54000°E, 27 Nov. 1997, L. Wilkie (AM KS58496, PBI\_OON 19646). Queensland: 1 &, Albinia National Park, Melaleuca woodland, litter, 24.73333°S, 148.75000°E, 226 m, 31 Oct.-17 Nov. 2010, C. Lambkin, N. Starick (QM S90650, PBI\_OON 19463); 1 &, Lonesome National Park, eucalypt woodland, litter, 25.81666°S, 148.98333°E, 585 m, 3–23 Nov. 2010, C. Lambkin, N. Starick (QM S90640, PM CONTROL OF CONT PBI\_OON 20385).

Etymology. The specific name is a Latin adjective meaning line, referring to postepigastric scutum with elevated median line of short, plumose setae in males.

Diagnosis. Males and females resemble those of *O. magna* in body shape, scuto-pedicel region about diameter of pedicel and in males by having a palpal tip with prolateral incision. Males can be distinguished by the postepigastric scutum with elevated median line of short, plumose setae (Fig. 41C). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) with slightly bowed arms (Fig. 42G).

Description. Male (PBI\_OON 23459, Figs 41A-J). Total length 1.48. Prosoma, mouthparts, abdominal scutae, legs and palpal patella orange brown. Carapace high-shouldered, broadly oval in dorsal view, with angular posterolateral corners, posterolateral edge with pair of pits, top smooth, sides striated, lateral margin rebordered, without denticles. Eyes, ALE: 0.071; PME: 0.084; PLE: 0.053, PME largest, ALE circular, PME squared; posterior eye row recurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Chelicerae straight, paturon with laminate groove. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges. Palpal patella 0.280 long, 0.160 wide, connection to femur at 0.56; bulb ventrally bulging; tip with two ventral ridges, and deep prolateral incision.

Female (PBI\_OON 23460 Fig. 42A-G). Total length 1.62. Eyes, ALE: 0.074; PME: 0.070: PLE: 0.062. Epigastric area, ventral view, epigastric fold (EF) evenly bowed, with small median knob and small median concavity; in dorsal view paddle-like sclerite (PSc) with slightly bowed arm; nail-like process (Na) long conical; globular appendix (GAp) mushroom-shaped (Fig. 42G).

**Distribution.** This species is widely distributed in central New South Wales and Queensland.

# Opopaea magna Baehr, sp. nov. (Figs 43A-J, 44A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Styx River State Forest, 30.72400°S, 152.10533°E, Jan. 1993, I. Oliver (AM KS74678, PBI\_OON 07514). Allotype ♀: Mt Boss State Forest (south plateau), 31.20000°S, 152.40000°E, no date, G.A. Webb (AM KS116471, PBI\_OON 20569).

Other material examined. AUSTRALIA: New South Wales: 1 3, Mt Boss State Forest (south plateau), 31.20000°S, 152.40000°E, no date, G.A. Webb (AM KS42895, PBI\_OON 20569); 1 3, Styx River State Forest, 30.73450°S, 152.11700°E, Jan. 1993, I. Oliver (AM KS89876, PBI\_OON 20145).

Etymology. The specific name is a Latin adjective *magna* meaning large, referring to the large body size.

Diagnosis. Males and females resemble those of *O. linea* in body shape and scuto-pedicel region about diameter of pedicel but can be distinguished by their much larger size and an additional wide distal ridge at scuto-pedicel region. Males similarly have a palpal tip with prolateral incision but can be distinguished by the lack of postepigastric scutum with elevated median line of short, plumose setae and a long bulbal tip with deep rounded prolateral incision (Fig. 43 I). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) with straight arms (Fig. 44G).

Description. Male (PBI\_OON 07514, Figs 43A-J). Total length 1.89. Prosoma, mouthparts, abdominal scutae and legs orange brown. Carapace broadly oval in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated, lateral margin straight, rebordered, without denticles. Eyes, ALE: 0.089; PME: 0.091; PLE: 0.070, PME largest, ALE circular, PME oval, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, Chelicerae straight, paturon with laminate groove. Abdomen ovoid; scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges and additional wide distal ridge. Palpal patella 0.382 long, 0.219 wide, connection to femur at 0.50, bulb narrow, slightly bulging, with dorsal patch of plumose setae, tip elongated, with medially bent, fused fold and large incision (Figs 43H, I).

Female (PBI\_OON 20569, Figs 44A-G). Total length 2.02. Eyes, ALE: 0.089; PME: 0.078; PLE: 0.073. Epigastric area, ventral view, epigastric fold (EF) widely triangular, with small knob; in dorsal view paddle-like sclerite (PSc) with slightly bent straight arms; nail-like process

(Na) small; globular appendix (GAp) conical (Fig. 44G).

**Distribution.** This species is only known from north eastern New South Wales.

# Opopaea margaretehoffmannae Baehr & Smith, sp. nov. (Figs 45A-J)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Sturt National Park, 29.10716°S, 141.96666°E, 22 Sept. 1997, A. Pik (AM KS78836, PBI\_OON 20188).

Other material examined. AUSTRALIA: New South Wales: 1 \$\infty\$, Sturt National Park, 29.13333°S, 141.50000°E, 25 Sept. 1997, M. Gillings (AM KS85488, PBL\_OON 20199); 1 \$\infty\$, Sturt National Park, 29.13333°S, 141.50000°E, 29 Sept. 1997, M. Dangerfield (AM KS8592, PBL\_OON 20203); 1 \$\infty\$, Sturt National Park, 29.27600°S, 142.15300°E, 25 Sept. 1997, M. Dangerfield (AM KS79490, PBL\_OON 20208).

Etymology. This species is named in honour of Margarete Hoffmann, the mother of Barbara Baehr, for her interest in our work.

Diagnosis. Males resemble those of *O. gerstmeieri* in having a flat body and two strong prolateral setae at the base of the bulb but can be distinguished by the larger eyes and the lack of a longitudinal concavity at the ventral scute, a 'fenestra' without a long fold and a deeply incised prolateral tip (Figs 45H, I).

Description. Male (PBI\_OON 20188, Figs 45A-J). Total length 1.35. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.070; PME: 0.067; PLE: 0.053, ALE largest, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow smooth. Abdomen, scuto-pedicel region about 1/2 of diameter of pedicel, with paired curved scutal ridges. Palpal patella 0.265 long, 0.154 wide connection to femur at 0.53; bulb ventrally

slightly bulging with two strong prolateral setae at base, 'fenestra' without fold, prolateral tip deeply incised (Fig. 45H).

Female. Unknown.

Distribution. This species is known only from north-western New South Wales.

### Opopaea martini Baehr, sp. nov. (Figs 46A-J, 47A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Lower Murray-Darling region, Boree Plains Station, 33.63916°S, 143.38933°E, 1 Oct. 1998, M. Le Breton (AM KS71226, PBI\_OON 20576). Allotype ♀: Boona State Forest, 34.72050°S, 145.99316°E, 15 Dec. 1998, L. Wilkie, S. Priday (AM KS58233, PBI\_OON 07628).

Other material examined. AUSTRALIA: New South Wales: 1 &, 23.5 km N of Mulwala, 'Savernake' Station, 35.77416°S, 146.02433°E, Nov. 2000, D. Freudenberger (AM KS84559, PBI\_OON 20201); 1 &, Coleambally Irrigation Area, 34.70250°S, 146.04200°E, 28 Apr. 1999, L. Wilkie (AM KS67265, PBI\_OON 7562).

Etymology. The specific name is for Dr Martin Baehr for his love of the Australian fauna.

Diagnosis. Males and females resemble none of the New South Wales species but rather resemble those of *O. robusta* from Western Australia in having PME largest, a high shouldered carapace and scuto-pedicel region high, about 1 ½ diameter of pedicel without scutal ridges. Males can be distinguished by a compact bulb which is ventrally strongly bulging, with dorsal patch of plumose setae with suddenly narrowed, medially bent tip (Fig. 46 l). In females the epigastric area in ventral view has epigastric fold (EF) widely triangular with wide median concavity Fig. 47G).

Description. *Male* (PBI\_OON 20576, Figs 46A-J). Total length 2.59. Prosoma, mouthparts, abdominal scutae, palpal patella and legs orange brown. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, with angular posterolateral corners, top granulated, sides weakly striated. Eyes, ALE: 0.089; PME: 0.093; PLE: 0.075, PME largest, ALE circular, PME circular; posterior eye row recurved from above, straight from front; ALE separated by more than their diameter, ALE-

PLE separated by less than ALE radius, PME separated by less than their radius, PLE-PME separated by less than PME radius. Sternum as long as wide, with weak radial furrows between coxae I-II, II-III, III-IV. Abdomen, pedicel tube ribbed, without dorsolateral triangular extensions, scuto-pedicel region about 1 ½ diameter of pedicel without scutal ridges. Palpal patella 0.361 long, 0.215 wide, connection to femur at 0.52; bulb compact, ventrally strongly bulging, with dorsal patch of plumose setae, suddenly narrowed, medially bent tip.

Female (PBI\_OON 07628, Figs 47A-G). Total length 1.95. Eyes, ALE: 0.064; PME: 0.075; PLE: 0.064. Epigastric area, ventral view, epigastric fold (EF) widely triangular with wide median concavity; in dorsal view paddle-like sclerite (PSc) with strong arms bent at the end (Fig. 47G); nail-like process (Na) big; globular appendix (GAp) divided into wide triangular hood hood and elongated extension.

Distribution. This species is known only from south-western New South Wales.

## Opopaea michaeli Baehr & Smith, sp. nov. (Figs 48A-J)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Sturt National Park, 29.13333°S, 141.50000°E, 29 Sept. 1997, M. Gillings (AM KS85544, PBI\_OON 20204).

Other material examined. AUSTRALIA: *New South Wales*: 1 &, Sturt National Park, 29.04116°S, 141.64116°E, 24 Sept. 1997, M. Dangerfield (AM KS85427, PBI\_OON 20197); 1 &, Sturt National Park, 29.20666°S, 141.02316°E, 29 Sept. 1997, I. Oliver (AM KS79340, PBI\_OON 20207).

Etymology. The specific name is a noun in apposition in honour of Helen Smith's brother, Michael Smith, for protection and repatriation of household spiders in an otherwise often hostile environment.

Diagnosis. Males resemble those of *O. suelewisae* in having a flat body with scutopedicel region about ½ of diameter of pedicel but can be distinguished by carapace top and sides finely reticulate and bulb with broad tip and dorsally directed prolateral fold, striated on top (Fig. 48 I).

Description. Male (PBI\_OON 20204, Figs 48A-J). Total length 1.64. Prosoma, mouthparts, abdominal scutae and legs pale orange. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with rounded posterolateral corners, top and sides finely reticulate; lateral margin rebordered, without denticles; pars thoracica with a horizontal row of at least 8 stronger spines. Eyes, ALE: 0.076; PME: 0.072; PLE: 0.060, ALE largest, ALE circular, PME oval; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with weak radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface finely reticulate, microsculpture covering entire surface. Abdomen, scuto-pedicel region about ½ of diameter of pedicel, with paired curved scutal ridges, ridges short, weak; postepigastric scutum weakly sclerotized, with long posteriorly directed lateral apodemes, about ½ of the abdomen long. Palpal patella 0.272 long, 0.156 wide, connection to femur at 0.62; bulb ventrally slightly bulging, tip with dorally directed prolateral fold striated on top (Fig. 48 I).

Female. Unknown.

Distribution. This species is known only from north-western New South Wales.

### Opopaea milledgei Baehr, sp. nov. (Figs 49A-J, 50A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales:* Devils Pulpit State Forest, 29.25750°S, 153.22433°E, 1 Jan. 1997, A. York (AM KS102819, PBI\_OON 20478). Allotype ♀: collected with holotype (AM KS116429, PBI\_OON 23604).

Other material examined. AUSTRALIA: *New South Wales*: 2 &, Devils Pulpit State Forest, litter, 29.25750°S, 153.22433°E, 1 Feb. 1997, A. York (AM KS102724, PBI\_OON 19358); 3 &, 1 &, same data (AM KS102732, PBI\_OON 19364); 1 &, same data (AM KS102736, PBI\_OON 19366); 1 &, same data (AM KS102733, PBI\_OON 19370); 2 &, same data (AM KS102734, PBI\_OON 19371); 3 &, 1 &, same data (AM KS102713, PBI\_OON 19373); 1 &, same data except 29.27066°S, 153.17166°E (AM KS102711, PBI\_OON 19375); 6 &, 1 &, same data (AM KS102695, PBI\_OON 19380); 1 &, same data

(AM KS102685, PBI\_OON 19450); 2 ♂, same data (AM KS102659, PBI\_OON 19461); 1 ♀, same data (AM KS102674, PBI\_OON 19471); 1 3, same data (AM KS102663, PBI\_OON 19472); 1 3, same data (AM KS102834, PBI\_OON 20470); 1 2, 29.25750°S, 153.22433°E, 1 Jan. 1997, A. York (AM KS102832, PBI\_ OON 20473); 1 👌, same data (AM KS102835, PBI\_OON 20479); 3 &, same data (AM KS102824, PBI\_OON 20486); 1 ♂, 1 ♀, same data (AM KS116430, PBI\_OON 23605); 1 3, Doubleduke State Forest, litter, 29.13833°S, 153.19000°E, 1 Feb. 1997, A. York (AM KS102728, PBI\_OON 19367); 1 ♀, 29.17266°S, 153.18566°E, 1 Feb. 1997, A. York (AM KS102817, PBI\_OON 20472); 1 ♂, same data except 29.14150°S, 153.17150°E, 1 Feb. 1997, A. York (AM KS102827, PBI\_OON 20476); 1 ♂, same data (AM KS102826, PBI\_OON 20488); 1 3, Mororo State Forest, litter, 29.31766°S, 153.23800°E, 1 Feb. 1997, A. York (AM KS102716, PBI\_OON 19379); 1 3, same data (AM KS102714, PBI\_OON 19394); 2 Q, Myrtle State Forest, litter, 29.19200°S, 153.01833°E, 1 Feb. 1997, A. York (AM KS102705, PBI\_OON 19393); 3 ♀, same data (AM KS102657, PBI\_OON 19469); 1 \$\varphi\$, same data (AM KS102669, PBI\_OON 19476); 1 \$\varphi\$, Severn State Forest, Atholwood Loop Road, 29.07133°S, 151.00883°E, 22 Nov.-13 Dec. 2001, L. Wilkie, H. Smith (AM KS83603, PBI\_OON 19128).

Etymology. This species is named for Graham Milledge the collection manager in the Arachnology Section of the Australian Museum, who has collected many goblin spiders.

Diagnosis. Males and females resemble those of *O. suelewisae* in having a flat body, carapace top smooth and sides striated and males with a thin medially bent palpal tip; both sexes can be distinguished by the much larger eyes and endites twice as long as wide. Males have the strong tooth-like projection at anteriorlateral part (Fig. 49F) and a longer bulbal tip (Fig. 49 I). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) with straight arms only bent at the end (Fig. 50G).

Description. *Male* (PBI\_OON 20478, Figs 49A–J). Total length 1.29. Prosoma, mouthparts and abdominal scutae pale orange, palpal patella orange brown, legs yellow. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes, ALE: 0.055; PME: 0.063; PLE: 0.053, PME largest, ALE circular, PME squared; posterior eye row straight from above, procurved from front; ALE separated by their radius to diameter, ALE-PLE separated by

less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth, with posterior hump between coxae IV. Abdomen, scuto-pedicel region about diameter of pedicel, with strongly reduced paired curved scutal ridges. PalpaI patella 0.254 long, 0.149 wide, connection to femur at 0.52; bulb ventrally slightly bulging with long tip, bent medially (Fig. 49 I).

Female (PBI\_OON 23604, Fig. 50A-G). Total length 1.42. Eyes, ALE: 0.064; PME: 0.055; PLE: 0.054. Epigastric area, ventral view chitinized area (Ch) a bowed ridge with small median knob; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) narrow, conical; globular appendix (GAp) divided into small hood and broad drop-shaped extension (Fig. 50G).

Distribution. This species is known only from the north east of New South Wales.

# Opopaea nitens Baehr, sp. nov. (Figs 51A-J, 52A-F)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Sturt National Park, 29.08950°S, 141.86716°E, 26 Sept. 1997, M. Dangerfield (AM KS78572, PBI\_OON 20190). Allotype ♀: Sturt National Park, 29.27100°S, 142.28816°E, 23 Sept. 1997, M. Henery (AM KS83046, PBI\_OON 7737).

Other material examined. AUSTRALIA: *New South Wales*: 1 ♀, Sturt National Park, 29.27600°S, 142.15316°E, 25 Sept. 1997, M. Gillings (AM KS79447, PBI\_OON 7736); 1 ♂, Sturt National Park, 29.27600°S, 142.15316°E, 25 Sept. 1997, M. Henery (AM KS79401, PBI\_OON 7740).

Etymology. The specific name is a Latin adjective meaning polished, referring to the shiny surface of the body.

Diagnosis. Males resemble those of *O. simplex* in having a flat body, but can be distinguished from other species by the lack of radial furrows between coxae I-II, II-III, III-IV, the lack of infracoxal grooves with posterior openings at lateral margin of sternum (Fig. 51B), the medially constricted bulb with a visible seam between cymbium and bulb and femur subbasally

attached to patella (Fig. 51H, J). In females the epigastric area in ventral view has epigastric fold (EF) widely bowed, with small knob (Fig. 52F).

Description. Male (PBI\_OON 20190, Figs 51A-J). Total length 1.23. Prosoma, mouthparts, abdominal scutae and legs pale orange. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with rounded posterolateral corners, top shiny, sides slightly reticulated; lateral margin rebordered. Eyes, ALE: 0.057; PME: 0.051; PLE: 0.038, ALE largest, ALE circular, PME squared; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, without radial furrows between coxae I-II, II-III, III-IV, surface shiny, with distinct marginal seam but without infra-coxal grooves and anterior and posterior openings (Fig. 51B). Abdomen, scutopedicel region low, less than ½ of diameter of pedicel, with median scutal ridge (Fig. 51G). Palpal femur subbasally attached to patella (Fig. 51J); patella 0.132 long, 0.092 wide, connection to femur at 0.32; with distal patch of plumose setae, bulb medially constricted with a visible seam between cymbium and bulb, with thin medially bent tip, 'fenestra' weak (Fig. 51H).

Female (PBI\_OON 07737, Fig. 52A-F). Total length 1.33. Eyes, ALE: 0.050; PME: 0.054; PLE: 0.038. Epigastric area, ventral view, epigastric fold (EF) widely bowed, with small knob (Fig. 52F).

Distribution. This species is known only from north-western New South Wales.

Opopaea ottoi Baehr, sp. nov. (Figs 53A-J, 54A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales:* Bulls Ground State Forest, litter, 31.55000°S, 152.63333°E, 1 Oct. 1999, A. York (AM KS102552, PBI\_OON 19282). Allotype ♀: collected with holotype (AM KS116431, PBI\_OON 23606).

Other material examined. AUSTRALIA: *New South Wales*: 1 Å, Bulls Ground State Forest, litter, 31.55000°S, 152.63333°E, 1 Feb. 2001, A. York (AM KS102602, PBI\_OON 19227); 1 Q, same data except

1 Oct. 1999 (AM KS102604, PBI\_OON 19236); 1 &, same data (AM KS102557, PBI\_OON 19275); 1 &, same data (AM KS102588, PBI\_OON 19242); 2 &, same data (AM KS102526, PBI\_OON 19304); 2 Å, same data (AM KS102532, PBI\_OON 19305); 1 Å, 1 Apr. 2000 (AM KS102592, PBI\_OON 19256); 1 3, 1 9, same data (AM KS102594, PBI\_OON 19263); 1 &, same data (AM KS102533, PBI\_OON 19291); 1 9, same data (AM KS116432, PBI\_OON 23607); 1 &, same data except 10 Feb. 1991 (AM KS43385, PBI\_OON 20119); 1 ♀, same data (AM KS43390, PBI\_OON 20139); 1 ♂, same data except Nov. 2000 (AM KS78242, PBI\_OON 20124); 1 &, 2 \, same data (AM KS78244, PBI\_OON 20135); 1 ♀, same data (AM KS78243, PBI\_OON 20141); 1 ♂, 1 ♀, same data (AM KS78252, PBI\_OON 20121); 1 \(\sigma\), same data (AM KS78253, PBI\_OON 20134); 1 \(\sigma\), same data (AM KS78246, PBI\_OON 20123); 1 \(\sigma\), same data (AM KS78256, PBI\_OON 20127); 3 \(\delta\), same data (AM KS78257, PBI\_OON 20147); 1 \(\delta\), same data (AM KS78257, PBI\_OON 20147); 1 2, same data (AM K578257, PBI\_OON 20147); 1 \(\psi\), same data (AM K578260, PBI\_OON 20131); 1 \(\psi\), same data (AM K578261, PBI\_OON 20136); 1 \(\psi\), same data (AM K578262, PBI\_OON 20132); 3 \(\psi\), same data (AM K578263, PBI\_OON 20144); 1 \(\psi\), same data (AM K578264, PBI\_OON 20144); 1 \(\psi\), same data (AM K578265, PBI\_OON 20138); 1 \(\psi\), same data (AM K578265, PBI\_OON 20138); 1 \(\psi\), same data (AM K578265, PBI\_OON 20120); 1 \(\psi\), same data (AM K5 York (AM KS78241, PBI\_OON 20120); 1 9, same data (AM KS78248, PBI\_OON 20126); 2 3, 2 9, same data (AM KS78249, PBI\_OON 20130); 1 ♂, 1 ♀, same data (AM KS78247, PBI\_OON 20125); 1 9, same data (AM KS78250, PBI\_OON 20129);  $1 \, \mathcal{Q}$ , same data (AM KS78254, PBI\_OON 20133); 2 \, 2, same data (AM KS78255, PBI\_OON 20137); 1 \, 2, same data (AM KS78258, PBI\_OON 20128); 1 3, Mount Boss State Forest, Banda Road, 1.2 km E of Hastings Forest Highway, 30.16750°S, 152.40050°E, 4 Feb.-9 Apr. 1993, M.R. Gray (AM KS42970, PBI\_OON 20217).

Etymology. This species is named for Jürgen Otto for his extraorinary contributions to Australian arachnology.

Diagnosis. Males and females resemble those of *O. yorki* in having a high shouldered carapace and high abdomen with scuto-pedicel region about the diameter of the pedicel, both sharing a field of short setae at postepigastric scutum and in males the prolateral incision at the bulbal tip, but can be distinguished by the larger size, a more dense field of setae and in males a narrow bulbal tip (Figs 53H, I). In females the epigastric area in ventral view has epigastric fold (EF) with triangular posteriorly open concavity and small knob (Figs 54F, G).

Description. *Male* (PBI\_OON 19282, Figs 53A–J). Total length 1.70. Prosoma, mouthparts

and abdominal scutae orange brown, legs pale orange. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes, ALE: 0.101; PME: 0.086; PLE: 0.079, ALE largest, ALE circular, PME squared; posterior eye row recurved from above, procurved from front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II. II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region about diameter of pedicel, with paired curved scutal ridges, and additional dorsal ridge (Fig. 53G). Palpal patella 0.374 long, 0.218 wide, connection to femur at 0.48; bulb ventrally slightly bulging, tip elongated narrow with incised prolateral part (Fig. 53H, I).

Female (PBI\_OON 23606, Fig. 54A-G). Total length 1.63. Eyes, ALE: 0.082; PME: 0.072; PLE: 0.059. Epigastric area, ventral view, epigastric fold (EF) with triangular posteriorly open concavity and small knob; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end (Fig. 54G); nail-like process (Na) bipartite conical; globular appendix (GAp) divided into small globular hood and narrow drop-shaped extension.

Distribution. This species is known only from north-eastern New South Wales.

# Opopaea plana Baehr, sp. nov. (Figs 55A-J, 56A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Girilambone Road, 5.4 km S of Monkey Bridge, 30.89200°S, 147.05533°E, 13 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77530, PBI\_OON 19575). Allotype ♀: East bank of Marthaguy Ck, opposite Quilbone Bore #2 track, 30.77000°S, 147.70250°E, 24 Nov.-14 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77531, PBI\_OON 19577).

Etymology. The specific name is a Latin adjective meaning flat, referring to the flat body of this species.

Diagnosis. Males and females resemble those of *O. simplex* in having a flat body and strongly reduced eyes but can be distinguished by the broader carapace, the reduced radial sternal furrows (Fig. 55B) and in males the short medially bent bulbal tip (Fig. 55 I). In females the epigastric area in ventral view with epigastric fold (EF) with long, narrow triangular median part (Fig. 56F).

Description. Male (PBI\_OON 19575, Figs 55A-J). Total length 1.11. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace broadly oval in dorsal view, pars cephalica flat in lateral view, with rounded posterolateral corners, top smooth, sides weakly striated; lateral margin rebordered, without denticles. Eyes reduced, ALE: 0.037; PME: 0.026; PLE: 0.024, ALE largest, ALE circular, PME circular; posterior eye row straight from both above and front; ALE separated by more than their diameter, ALE-PLE separated by less than ALE radius, PME separated by less than their radius, PLE-PME separated by less than PME radius. Sternum longer than wide, with narrow and weak radial furrows between coxae I-II, II-III, III-IV, furrow smooth, surface smooth. Abdomen, scuto-pedicel region less than 1/2 of diameter of pedicel, with paired curved scutal ridges, connected at middle; postepigastric scutum long, semicircular, with short posteriorly directed lateral apodemes. Palpal patella 0.204 long, 0.121 wide, connection to femur at 0.51; bulb ventrally slightly bulging, with short, sharp, medially bent tip (Fig. 55 I).

Female (PBI\_OON 19577, Fig. 56A-G). Total length 1.26. Eyes, ALE: 0.050; PME: 0.039; PLE: 0.038. Epigastric area, ventral view, epigastric fold (EF) with narrow triangular median part; in dorsal view paddle-like sclerite (PSc) with arms bent at the end; nail-like process (Na) conical; globular appendix (GAp) divided into small hood and long narrow extension Fig. 56G).

Other material examined. AUSTRALIA: *New South Wales*: 1 6, 0.7 km N of turnoff to Wyndabyne Station, Warren-Quambone Road, 31.13533°S, 147.84100°E, 13 Dec. 1999, L. Wilkie *et al.* (AM KS77533, PBI\_OON 19579).

Distribution. This species is known only from central New South Wales.

### Opopaea simplex Baehr, sp. nov. (Figs 57A-J, 58A-G)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Castlereagh Highway, 1.7 km N of junction with Gwydir Highway, 29.89233°S, 148.15933°E, 13 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77536, PBI\_OON 19580). Allotype ♀: Linton Nature Reserve, SW corner of Reserve, 60 m E of road, 30.45750°S, 150.85766°E, 18 Nov.- 09 Dec. 2001, H. Doherty, M. Elliott (AM KS83430, PBI\_OON 19560).

Other material examined. AUSTRALIA: New South Wales: 1 &, 5.2 km W along track opp. access road to Narran Park Station, 29.70250°S, 147.28733°E, 25 Nov.-15 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77537, PBI\_OON 19582); 1 &, Beaury State Forest, Koorelah Ra., Tucker Box Road, forest, litter, 28.47233°S, 152.40183°E, 23 Mar.-9 May 1999, S. Lassau, C. Lemann (AM KS116470, PBI\_OON 23609); 1 3, Bulls Ground State Forest, litter, 31.55000°S, 152.63333°E, 1 Oct. 1999, A. York (AM KS102556, PBI\_OON 19287); 1 2, Calcally Indiana. Coleambally Irrigation Area, 34.92650°S, 145.77000°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS67124, PBI\_OON 7542); 1 \$\frac{1}{2}\$, Coleambally Irrigation Area, 34.93500°S, 145.77516°E, 14 Dec. 1998, L. Wilkie, S. Priday (AM KS68920, PBI\_OON 7692); 1 \$\frac{1}{2}\$, Copeland State Forest, 32.01666°S, 151.81666°E, 11 Feb. 1993, R. Witchard (AM KS59742, PBI\_OON 20500); 1 \$\frac{1}{2}\$, R. Witchard (AM KS59742, PBI\_OON 20500); 1 \$\frac{1}{2}\$, R. Witchard (AM KS59742, PBI\_OON 20500); 1 \$\frac{1}{2}\$. Crown Res., 0.9 km along road to Woolomin rubbish tip, 31.30083°S, 151.15333°E, 25 Nov. 2000–15 Nov. 2001, L. Wilkie, H. Smith et al. (AM KS83436, PBI\_ OON 19564); 2 &, Crown Res., 8 km S of Woolomin, 31.35483°S, 151.14000°E, 15 Nov.-6 Dec. 2001, L. Wilkie, H. Smith (AM KS83559, PBI\_OON 19809); 1 \$\,\text{Crown Res., Bundarra-Cobbadah Road, 1.5} km W of Forrest Ck X, 30.22150°S, 150.70683°E, 18 Nov.-9 Dec. 2001, L. Wilkie, H. Smith (AM KS83454, PBI\_OON 19783); 1 Q, Dirrinbandi Road, 7.6 km from Collarenebri-Angledool Road jctn, 29.15866°S, 148.11716°E, 22 Nov.-12 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77535, PBl\_OON 19584); 3 ♂, 2 ♀, Dowe State Forest, 30.78850°S, 150.49000°É, 23 Nov. 1999-14 Dec. 2001, L. Wilkie, H. Smith (AM KS83431, PBI\_OON 19561); 1 &, junction of Mobigamy Creek and Carlton-Brewarinna Road, 31.10633°S, 147.18816°E, 13 Dec. 1999, L. Wilkie, R. Harris, T. Moulds (AM KS77529, PBI\_OON 19581): 1 3.1 9. Kelvin State Forest, 8 km N of 19581); 1 3, 1 2, Kelvin State Forest, 8 km N of Kelvin, 30.75000°S, 150.33750°E, 23 Nov. 1999–14 Dec. 2001, H. Doherty, M. Elliott (AM KS83429, PBI\_OON 19558); 1 & Linton Nature Reserve, 300 m from reserve entrance from Warrabah, 30.45850°S, 150.88850°E, 18 Nov.-9 Dec. 2001, H. Doherty, M. Elliott (AM KS83432, PBI\_OON 19562); 2 &, 1 Q, Linton Nature Reserve, 500 m past fork in road, NW side of Reserve, 30.44266°S, 150.85966°E, 18 Nov.-9

Dec. 2001, H. Doherty, M. Elliott (AM KS83428, PBI\_OON 19563); 1 \$\frac{1}{2}\$, Linton Nature Reserve, 500 m past fork in road, NW side of Reserve, 30.44266°S, 150.85966°E, 18 Nov.-9 Dec. 2001, H. Doherty, M. Elliott (AM KS83433, PBI\_OON 19565); 1 \$\frac{1}{2}\$, Linton Nature Reserve, 700 m W of Reserve entrance, 30.45633°S, 150.88533°E, 18 Nov.-9 Dec. 2001, H. Doherty, M. Elliott (AM KS83434, PBI\_OON 19559); 1 \$\frac{1}{2}\$, Richmond Range State Forest, Goanna Creek Road, 0.4 km from junction with Sandy Creek Road, 28.61900°S, 152.70250°E, 4 Feb.-9 Apr. 1993, M.R. Gray (AM KS37796, PBI\_OON 7973); 1 \$\frac{1}{2}\$, Spirabo State Forest, Wattle Creek Road, 29.30633°S, 152.17483°E, 4 Feb.-9 Apr. 1993, M.R. Gray (AM KS38196, PBI\_OON 7962).

**Etymology.** The specific name is a Latin adjective *simplex* meaning simple, referring to the fact that this species has no special body features.

Diagnosis. Males and females resemble those of *O. plana* in having a flat body and strongly reduced eyes but can be distinguished by the longer carapace and in males the long medially bent bulbal tip (Fig. 57 I). In females the epigastric area in ventral view has epigastric fold (EF) with concavity ocupying half of its width and with small inverted drop-shaped knob (Fig. 58G).

Description. Male (PBI\_OON 19580, Figs 57A-I). Total length 1.29. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, top smooth, sides only slightly striated; lateral margin rebordered, without denticles. Eyes reduced, tiny, ALE: 0.044; PME: 0.036; PLE: 0.029, ALE largest, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, flat, with radial furrows between coxae I-II, II-III, III-IV, surface smooth. Abdomen, scuto-pedicel region less than ½ of diameter of pedicel, with paired curved scutal ridges, connected at middle (Fig. 57G). Palpal patella 0.233 long, 0.129 wide, connection to femur at 0.46; bulb ventrally strongly bulging, tip long nail-shaped, bent medially.

Female (PBI\_OON 19560, Fig. 58A–G). Total length 1.41. Eyes, ALE: 0.040; PME: 0.045; PLE: 0.039. Epigastric area, ventral view, epigastric fold (EF) with concavity occupying half of its width, with small inverted-dropshaped knob; in dorsal view paddle-like sclerite (PSc) with slightly bowed arms; nail-like process (Na) conical; globular appendix (GAp) divided into tiny hood and long inverted t-shaped extension (Fig. 58G).

**Distribution.** This species is widely distributed in New South Wales.

#### Opopaea sown Baehr, 2011 (Figs 59A-F)

Opopaea sown Baehr, 2011: 432-433, figs 6, 32-34, 50, 51, 63.

Material examined. See Baehr (2011).

New material examined. AUSTRALIA: New South Wales: 1 ♂, 1 ♀, Bulls Ground State Forest, litter, 31.55000°S, 152.63333°E, 1 Oct. 1999, A. York (AM KS102607, PBI\_OON 19224); 1 ♂, same data (AM KS102590, PBI\_OON 19237); 1 ♂, same data (AM KS102609, PBI\_OON 19237); 1 &, same data (AM KS102590, PBI\_OON 19241); 1 &, 1 &, same data (AM KS102583, PBI\_OON 19244); 1 &, same data (AM KS102575, PBI\_OON 19246); 1 &, same data (AM KS102578, PBI\_OON 19251); 1 &, same data (AM KS102598, PBI\_OON 19255); 1 &, 1 &, same data (AM KS102598, PBI\_OON 19258); 1 &, same data (AM KS102595, PBI\_OON 19262); 1 &, same data (AM KS102595, PBI\_OON 19271); 1 &, same data (AM KS102580, PBI\_OON 19271); 1 &, same data (AM KS102581, PBI\_OON 19271); 2 & same data (AM KS102561, PBI\_OON 19279); 2 & same data (A same data (AM KS102561, PBI\_OON 19279); 2 same data (AM KS102555, PBI\_OON 19286); 1 same data (AM KS102555, PBI\_OON 19286); 1 d, same data (AM KS102535, PBI\_OON 19290); 1 c, same data (AM KS102534, PBI\_OON 19292); 1 d, same data (AM KS102536, PBI\_OON 19294); 1 \$\rightarrow\$, same data (AM KS102521, PBI\_OON 19296); 1 \$\rightarrow\$, same data (AM KS102531, PBI\_OON 19299); 1 \$\rightarrow\$, same data (AM KS102520, PBI\_OON 19303); 1 \$\rightarrow\$, same data (AM KS102538, PBI\_OON 19303); 1 \$\right 19307); 1 &, same data (AM KS102519, PBI\_OON 19307); 2 ♀, same data (AM KS102547, PBI\_OON 19309); 1 &, same data (AM KS102537, PBI\_OON 19310); 1  $\circlearrowleft$ , same data (AM KS102544, PBI\_OON 19311); 1  $\circlearrowleft$ , same data (AM KS102544, PBI\_OON 19311); 1  $\delta$ , same data (AM KS102541, PBI\_OON 19316); 2  $\circ$ , same data (AM KS102529, PBI\_OON 19319); 2 9, same data (AM KS102623, PBI\_OON 23539); 1 9, same data (AM KS102532, PBI\_OON 23541); 1 ♀, same data (AM KS102600, PBI\_OON 23546); 1 &, same data (AM KS102616, PBI\_OON 23548); 1 ♀, same data except 1 Feb. 2001 (AM KS102601, PBI\_OON 19226); 1 9, same data (AM KS102611, PBI\_OON 19232); 1 9, same data (AM KS102618, PBI\_OON 19240); 1 3, same data (AM

KS102596, PBI\_OON 19261); 1 &, same data (AM KS102565, PBI\_OON 19274); 1 &, 1 &, same data (AM KS102543, PBI\_OON 19317); 1 &, same data (AM KS102530, PBI\_OON 19320); 1 &, same data (AM KS102579, PBI\_OON 23530); 1 &, same data except 1 Apr. 2000, (AM KS102615, PBI\_OON 19229); 1 &, same data (AM KS102614, PBI\_OON 19238); 1 &, same data (AM KS102519, PBI\_OON 19238); 1 &, same data (AM KS102577, PBI\_OON 19245); 4 &, 1 &, same data (AM KS102577, PBI\_OON 19245); 4 &, 1 &, same data (AM KS102572, PBI\_OON 19265); 1 &, same data except 1 Mar. 1996 (AM KS102582, PBI\_OON 19247); 1 &, same data (AM KS102582, PBI\_OON 19247); 1 &, same data (AM KS102551, PBI\_OON 19313); 1 &, same data (AM KS102548, PBI\_OON 19313); 1 &, same data (AM KS102574, PBI\_OON 19250); 1 &, same data (AM KS102574, PBI\_OON 19250); 1 &, same data (AM KS102589, PBI\_OON 19259); 1 &, 1 &, same data (AM KS102589, PBI\_OON 19259); 1 &, 1 &, same data (AM KS102573, PBI\_OON 19266); 1 &, same data (AM KS102569, PBI\_OON 19259); 1 &, 1 &, same data (AM KS102573, PBI\_OON 19266); 1 &, Lumeah Road, 1.7 km from Mt Allyn Road, Chichester State Forest, 32.10533°S, 151.4340°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS38930, PBI\_OON 7986); 1 &, Mt Boss State Forest Rimau Road, 31.19133°S, 152.35450°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS38930, PBI\_OON 7986); 1 &, Mt Boss State Forest Rimau Road, 31.19133°S, 152.35450°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS38930, PBI\_OON 7986); 1 &, Mt Boss State Forest Rimau Road, 31.19133°S, 152.35450°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS38930, PBI\_OON 7986); 1 &, Mt Boss State Forest Rimau Road, 31.19133°S, 152.35450°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS48991, PBI\_OON 20159).

Diagnosis. Males resemble those of *O. suelewisae* in having a relatively flat body, carapace top smooth, sides striated and with thin medially bent palpal tip but can be distinguished by the broader carapace (Fig. 59A), the 'fenestra' with a broad fold and the longer and broader tip (Fig. 59F).

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

Distribution. This species is known only from north-eastern New South Wales and south-eastern Queensland.

### Opopaea sturt Baehr, sp. nov. (Figs 60A–J)

Material examined. Holotype o: AUSTRALIA: *New South Wales*: Sturt National Park, 29.27600°S, 142.15316°E, 25 Sept. 1997, A. Pik (AM KS79407, PBI\_OON 20189).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. bushblitz* in having a flat body, with scuto-pedicel region only ½ of diameter of pedicel and paired scutal

ridges slightly arched, connected medially but can be distinguished by the lack of a short medially striated tip (Fig. 60 I).

Description. Male (PBI\_OON20189, Figs 60A-J). Total length 1.53. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow, palpal patella orange brown. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes, ALE: 0.075, PME: 0.060; PLE: 0.048, ALE largest, ALE circular, PME oval; posterior eye row recurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow smooth, surface smooth. Abdomen, scuto-pedicel region 1/2 of diameter of pedicel, with paired curved scutal ridges. Palpal patella 0.246 long, 0.141 wide, connection to femur 0.52; palpal bulb ventrally strongly bulging with wide 'fenestra' and short medially bent tip (Fig. 60 I).

Female. Unknown.

Distribution. This species is known only from north-western New South Wales.

Opopaea suelewisae Baehr & Smith, sp. nov. (Figs 61A-J, 62A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: E side of Bald Hill (Tamworth), 31.07150°S, 150.95600°E, 15 Nov.-6 Dec. 2001, H. Doherty, M. Elliott (AM KS83565, PBI\_OON 19804). Allotype ♀: 2 km from Tamworth on Tintinhull Road, 31.05566°S, 150.95083°E, 15 Nov.-6 Dec.2001, H. Doherty, M. Elliott (AM KS83554, PBI\_OON 19790).

Other material examined. AUSTRALIA: *New South Wales*: 2 ♀, 'Temi' (N of Murrurundi), Chilcotts Ck Road, 31.67466°S, 150.81666°E, 15 Nov.-6 Dec. 2001, L. Wilkie, H. Smith (AM KS83580, PBI\_OON 19685); 1 ♂, 1 ♀, same data (AM KS83552, PBI\_OON 19798); 1 ♂, 20 km N of Burcher on Road to Manna Mtn, 33.36866°S, 147.25033°E, 25 Mar. 1996, D. Smith R. Harris (AM KS49556, PBI\_OON 20549); 1 ♀, 2 km from Tamworth on Tintinhull Road, 31.05566°S, 150.95083°E, 15 Nov.-6 Dec. 2001, H. Doherty, M. Elliott (AM KS83583, PBI\_OON 19677); 1 ♂, same

data (AM KS83440, PBI\_OON 19768); 1 ♂, same data (AM KS83441, PBI\_OON 19779); 1 8, same data (AM KS83554, PBI\_OON 19790); 1 3, 2 9, same data (AM KS83550, PBI\_OON 19800); 4 d, same data (AM KS83557, PBI\_OON 19802); 2 &, 1 , same data (AM KS83548, PBI\_OON 19805); 7.5 km NW of Gin Gin, Wambianna Station, 31.87116°S, 148.02266°E, 22 Nov.-12 Dec. 1999, L. Wilkie et al., 1 (AM KS77582, PBI\_OON 19066); 1 ♀, Crown Res., 8 km S of Woolomin, 31.35483°S, 151.14000°E, 15 Nov.-6 Dec. 2001, L. Wilkie, H. Smith (AM KS83581, PBI\_OON 19679); 1 &, Doubleduke State Forest, 2 km WSW of jnctn of Pacific Highway and Glencoe Road, 29.20816°S, 153.24083°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS42156, PBI\_OON 20215); 1 8, Dowe State Forest, 30.78850°S, 150.49000°E, 23 Nov. 1999-14 Dec. 2001, L. Wilkie, H. Smith (AM KS83567, PBI\_OON 19797); 2 &, E side of Bald Hill (Tamworth), 31.07150°S, 150.95600°E, 15 Nov.-6 Dec. 2001, H. Doherty, M. Elliott (AM KS119748, PBI\_OON 23551); 1 d, Middle of Attunga State Forest, end of Archery Trail, 30.92583°S, 150.92000°E, 16 Nov.-7 Dec. 2001, G. Carter (AM KS83446, PBI\_OON 19780); 1 3, Mororo State Forest, litter, 29.31766°S, 153.23800°E, 1 Feb. 1997, A. York (AM KS102691, PBI\_OON 19399); 1 &, Mountain Trail, 0.8 km S of jnctn with Kunungra Road, 32.13866°S, 151.75050°E, 4 Feb.-9 Apr. 1993, M. Gray, G. Cassis (AM KS40572, PBI\_OON 7959); 1 ♀, Mt Kaputar National Park, 250 m S of track to car park at Waa Gorge, 30.05983°S, 150.08816°E, 21 Nov.–12 Dec. 2001, H. Doherty, H. Smith (AM KS83453, PBI\_OON 19777); 1 ♀, Mt Kaputar National Park, Bullawa Ck Tk, 1.1 km past Foggy Dell turnoff, 30.23583°S, 150.08716°E, 20 Nov.-11 Dec. 2001, L. Wilkie, H. Smith (AM KS83573, PBI\_OON 19686); 1 Å, Nana Creek State Forest, 5 km ENE of Lowanna, 30.19183°S, 152.94216°E, 10-23 Nov. 1999, M. Gray, G. Milledge, H. Smith (AM KS63397, PBI\_OON 20559); 2 ♀, Oaky Creek Nature Reserve, in valley in line with most northerly peak to the west, 31.08766°S, 150.60583°E, 16 Nov.-8 Dec. 2001, H. Doherty, M. Elliott (AM KS83574, PBI\_OON 19678); 1 ♂, same data (AM KS83569, PBI\_OON 19795); 1 ♂, 1 ♀, same data (AM KS83555, PBI\_OON 19796); 1 ♀, Oaky Creek Nature Reserve, up tributary on W range; ridge on footslopes of NE side of Figtree Mt, 31.10183°S, 150.60700°E, 17 Nov.-8 Dec. 2001, L. Wilkie (AM KS83577, PBI\_OON 19684); 1 ♀, Oaky Creek Nature Reserve, 31.10633°S, 150.61850°E, 17 Nov.-8 Dec. 2001, L. Wilkie, H. Smith (AM KS83582, PBI\_OON 19674); 1 ♂, same data (AM KS83570, PBI\_OON 19789); 1 \( \text{?}, Oaky Creek Nature Reserve, 400 m W of Oaky Ck Road, 31.10916°S, 150.60966°E, 17 Nov.-8 Dec. 2001, H. Doherty, M. Elliott (AM KS83572, PBI\_OON 19673); 1 ♀, same data (AM KS83578, PBI\_OON 19682); 1 3, same data (AM KS83568, PBI\_OON 19794); 1 &, Oaky Creek Nature Reserve, at base of E side of Melville Range, 31.10516°S, 150.62000°E, 17 Nov.-8 Dec. 2001, L. Wilkie, H. Smith (AM KS83566, PBI\_OON 19792); 2 &, same data (AM KS83564, PBI\_OON 19793); 2

\$\(^3\), 1 \(^2\), same data (AM KS83549, PBI\_OON 19801); 3 \(^3\), same data (AM KS83556, PBI\_OON 19803); 2 \(^3\), same data (AM KS83560, PBI\_OON 19810); 1 \(^2\), Oaky Creek Nature Reserve, W bank of Oaky Creek, 30.20100°S, 150.63583°E, 16 Nov.-8 Dcc. 2001, L. Wilkie, H. Smith (AM KS83584, PBI\_OON 19681); 1 \(^3\), 2 \(^2\), same data (AM KS83551, PBI\_OON 19799); 1 \(^3\), Pilliga region, 'Baraba', 30.10900°S, 148.78733°E, 1 Feb. 2001, I. Oliver (AM KS81026, PBI\_OON 20191); 1 \(^2\), Pilliga region, 'Valmyma', 30.48500°S, 148.81800°E, Febr. 2001, I. Oliver (AM KS81025, PBI\_OON 20205); 1 \(^2\), Sturt National Park, 29.10783°S, 141.60483°E, 26 Sept. 1997, M. Streulens (AM KS83162, PBI\_OON 7735); 1 \(^2\), Sturt National Park, 29.01983°S, 141.17633°E, 28 Sept. 1997, M. Gillings (AM KS83773, PBI\_OON 7738); 1 \(^2\), Sturt National Park, 29.10783°S, 141.60483°E, 26 Sept. 1997, M. Streulens (AM KS83160, PBI\_OON 7739); 1 \(^2\), Sturt National Park, 29.27600°S, 142.15316°E, 25 Sept. 1997, A. Holmes (AM KS79470, PBI\_OON 7741); 1 \(^2\), Tamworth, W side of Bald Hill behind radio tower, 31.07216°S, 150.95400°E, 15 Nov.-6 Dec. 2001, H. Doherty, M. Elliott (AM KS83576, PBI\_OON 19788); 1 \(^2\), same data (AM KS83571, PBI\_OON 19787); 1 \(^3\), 1 \(^3\), same data (AM KS83553, PBI\_OON 19791); 1 \(^3\), same data (AM KS83552, PBI\_OON 19791); 1 \(^3\), same data (AM KS83562, PBI\_OON 19806).

Etymology. The specific name is in honour of Sue Lewis, for her contribution to educating children about spiders.

Diagnosis. Males resemble those of *O. milledgei* in having a flat body, carapace top smooth, sides striated and with thin medially bent palpal tip but can be distinguished by the much smaller eyes, endites 1 ½ times as long as wide with strong tooth-like projection at anteriormedian part and the slightly shorter tip (Fig. 61F). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) with strongly bent arms (Fig. 62G).

Description. *Male* (PBI\_OON 19804, Figs 61A–J). Total length 1.32. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes small, ALE: 0.044; PME: 0.044; PLE: 0.040, ALE, PME subequal, larger than PLE, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by

less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, slightly bulging between coxae IV, setae orientated in circle. Abdomen, scuto-pedicel region less than diameter of pedicel, with paired curved scutal ridges. Palpal patella 0.239 long, 0.143 wide, connected to femur at 0.47; bulb ventrally strongly bulging with thin, spatulate medially bent tip (Fig. 61 I).

Female (PBI\_OON 19790, Figs 62A-G). Total length 1.48. Eyes, ALE: 0.049; PME: 0.038; PLE: 0.034. Epigastric area, ventral view, epigastric fold (EF) widely triangular, with small knob; in dorsal view paddle-like sclerite (PSc) with strongly bent arms; nail-like process (Na) narrow conical; globular appendix (GAp) divided into tiny hood and triangular extension (Fig. 62G).

Distribution. This species is widely distributed in New South Wales.

Opopaea sylvestrella Baehr & Smith, sp. nov. (Figs 63A-J, 64A-G)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Lord Howe Island, Malabar Hill walking track, 31.50850°S, 159.05450°E, 10 Aug. 2001, I. Hutton (AM KS88937, PBI\_OON 20285). Allotype ♀: collected with holotype (AM KS88937, PBI\_OON 23550).

Other material examined. AUSTRALIA: New South Wales: Lord Howe Island: 1 \$\partial\$, Erskine Valley, 31.58000°S, 159.07666°E, 175 m, 12 July 1979, T. Kingston, B. Miller (AM KS10518, PBI\_OON 20529); 1 \$\partial\$, "Seabreeze", 31.55116°S, 159.07200°E, 12 Feb. 1979, T.J. Kingston (AM KS88934, PBI\_OON 20277); 1 \$\partial\$, base of Round Face (Mt.Lidgbird), Far Flats, 31.56816°S, 159.07250°E, 4-14 Dec. 2000 (AM KS76129, PBI\_OON 20450); 1 \$\partial\$, beach at Old Gulch on W footslopes, 31.50883°S, 159.03933°E, 20 Nov. 2000 (AM KS75762, PBI\_OON 20114); 1 \$\partial\$, same data (AM KS75888, PBI\_OON 20144); 1 \$\partial\$, below Intermediate Hill, Boat Harbour trail, 31.54316°S, 159.08733°E, 12 Dec. 2000 (AM KS79114, PBI\_OON 20100); 1 \$\partial\$, Boat Harbour Trail, 100 m S of Rocky Run Ck, 31.55333°S, 159.08816°E, 12 Dec. 2000, G.A. Cassis (AM KS79124, PBI\_OON 20444); 1 \$\partial\$, coast trail to Boat Harbour, 750 m from start, 31.54183°S, 159.08500°E, 3-13 Dec. 2000 (AM KS76093, PBI\_OON 20106); 1 \$\partial\$, same data (AM KS76098, PBI\_OON 20117); 1 \$\partial\$, E end of Boat Harbour Beach, 31.55616°S, 159.09216°E, 26 Nov.-2 Dec. 2000 (AM KS76109, PBI\_

OON 20103);  $1 \stackrel{?}{\circ}$ ,  $1 \stackrel{?}{\circ}$ , same data (AM KS75814, PBl\_ OON 20111); 1 &, E slope of Malabar Ridge, above Neds Beach, 31.51716°S, 159.05633°E, 25 Nov.-2 Dec. 2000 (AM KS75921, PBI\_OON 20113); 1 ♂, same data (AM KS75920, PBI\_OON 20458); 1 ♀, E slope of Phillip Point (North Head), 31.52000°S, 159.03816°E, 1 Dec. 2000 (AM KS75776, PBI\_OON 20115); 1 ♀, Get Up Place, trail to Mt Gower, 31.57466°S, 159.07533°E, 2 Dec. 2000 (AM KS75843, PBI\_OON 20442); 1 3, same data (AM KS76206, PBI\_OON 20448); 1 3. Intermediate Hill Tk, Rocky Run crossing, 31.55366°S, 159.08566°E, 18 May 2002, I. Hutton (AM KS88935, PBI\_OON 20281); 1 3, same data except 24 Jan. 1979, T. Kingston, B. Miller (AM KS102508, PBI\_OON 20523); 1 ♀, Malabar Hill walking track, half way to summit, 31.51666°S, 159.05683°E, 10 Aug. 2001, I. Hutton (AM KS88927, PBI\_OON 20280); 1 6, same data (AM KS88938, PBI\_OON 20273); 1 ♀, Malabar Hill, on path to Kim's Lookout, 31.50900°S, 159.05366°E, 24 Nov. 2000 (AM KS79115, PBI\_OON 20099); 1 ♀, same data (AM KS75870, PBI\_OON 20101); 1 ♀, Mt Gower summit, 31.58716°S, 159.06983°E, 1978, T.J. Kingston (AM KS87116, PBI\_OON 20455); 1 3, Mt Lidgbird, 31.55866°S, 159.08633°E, 31 Jan. 1980, T.J. Kingston (AM KS88930, PBI\_OON 20283); 1 d, N bank of Rocky Run Ck, Boat Harbour Trail, 31.55316°S, 159.08883°W, 26 Nov.-3 Dec. 2000 (AM KS79122, PBI\_OON 20446); 1  $\circ$ , same data (AM KS79121, PBI\_ OON 20447); 1 3, same data except 3-13 Dec. 2000 (AM KS76050, PBI\_OON 20449); 1 \, same data (AM KS79120, PBI\_OON 20462); 1 \, North Hummock, trail to Intermediate Hill, 31.54233°S, 159.07633°E, 26 Nov.-3 Dec. 2000 (AM KS79116, PBI\_OON 20112); 1 o, same data (AM KS79117, PBI\_OON 20116); 1 9, same data (AM KS75974, PBI\_OON 20441); 1 o, same data (AM KS79118, PBI\_OON 20443); 2 o, 2 9, NW slope of Malabar Hill, 31.51800°S, 159.05700°E, 7 Aug. 2001, I. Hutton (AM KS88928, PBI\_OON 20286); 1 \( \text{Q}, \text{Old Settlement, 31.51900°S, 159.05083°E, 1979, T.J. Kingston (AM KS88932, PBI\_OON 20274); 2001. 2 ♀, Old Settlement, 31.51900°S, 159.05083°E, 1979, T.J. Kingston (AM KS88931, PBI\_OON 20278); 1 d, Peach Tree Ridge, below Intermediate Hill, 31.55016°S, 159.08416°E, 3 Dec. 2000 (AM KS75800, PBI\_OON 20459); 1 ♀, same data (AM KS79119, PBI\_ OON 20461); 1 3, S end of Salmon Beach, 31.56800°S, 159.07133°E, 4-14 Dec. 2000 (AM KS76116, PBI\_ OON 20102); 1 \, Stevens Reserve, New Settlement, 31.52233°S, 159.05900°E, 30 Sept. 1978, T. Kingston, B. Miller (AM KS87112, PBI\_OON 20454); 1 ♀, same data except 25 Sept. 1978 (AM KS87113, PBI\_OON 20456); 1 d, same data except 23 Sept. 1978 (AM KS88933, PBI\_OON 20263); 1 3, Stevens Reserve, 31.52083°S, 159.06766°E, 8-12 Dec. 2000, H.Gibb, R. Harris, T. Moulds (AM KS82454, PB1\_OON 20445); 1 \, Stevens Reserve, 31.52233\, 159.05900\, 11 July 1979, T. Kingston, B. Miller (AM KS102511, PBI OON 20522); 1 d, 1 Stevens Reserve, 31.52083°S, 159.06766°E, 13 Nov. 1979, G. Monteith (QM S79699, PBI\_OON 22480); 1 \, Stevens Reserve, disturbance gradients, 31.52083°S, 159.06766°E, 8-15 Dec. 2000, H.

Gibb, R. Harris, T. Moulds (AM KS88929, PBI\_OON 20287); 1 ♀, trail through Erskine Valley, 31.57283°S, 159.07216°E, 25 Nov.-2 Dec. 2000 (AM KS76174, PBI\_OON 20460); 1 \, trail to Boat Harbour, opp. Mutton Bird Pt, 31.54283°S, 159.08733°E, 26 Nov.-3 Dec. 2000 (AM KS75984, PBl\_OON 20107); 1 ♀, trail to Mt Gower, 31.58533°S, 159.07250°E, 5-14 Dec. 2000 (AM KS79123, PBI\_OON 20452); 1 &, Transit Hill (Nicholls), 31.53416°S, 159.07050°E, 25 Oct. 1978, T. Kingston, B. Miller (AM KS87111, PBI\_OON 20110); 1 d, same data except 10 Oct. 1978 (AM KS87114, PBI\_OON 20453); 1 δ, 1 ♀, same data (AM KS87115, PBI\_OON 20457); 1 ♀, W slope of Malabar Ridge, 31.50950°S, 159.05516°E, 24 Nov. 2000 (AM KS75763, PBI\_OON 20109); 1 Å, W slope of Transit Hill, 31.53416°S, 159.03733°E, 24 Nov. 1999-1 Dec. 2000 (AM KS75946, PBI\_OON 20118); 1 Q, walking trail through Erskine Valley, 31.57283°S, 159.07216°E, 2 Dec. 2000 (AM KS75832, PBI\_OON 20105); 1 \$\frac{1}{2}\$, same data except 31.50000°S, 159.06666°E, 1 Jan. 1979, T. Kingston (AM KS102513, PBI\_OON 20526); 1 \$\frac{1}{2}\$, 1 \$\frac{1}{2}\$, Mount Gower west side, 31.58333°S, 159.06666°E, 22 Nov. 1978, T. Kingston, B. Miller (AM KS102517, PBI\_OON 20528); 1 \$\frac{1}{2}\$, 100 m east of Soldiers Creek, closer to trail, 31.57583°S, 159.08483°E, 12 Dec. 2003, G. Brown (AM KS90329, PBI\_OON 20270); 1 ♀, Erskine Valley, 31.58000°S, 159.06666°E, 12 July 1979, T. Kingston, B. Miller (AM KS102505, PBI\_OON 20521); 1 ♀, same data except 1 Aug. 1979 (AM KS102516, PBI\_OON 20530); 1 ♀, golf course, near second tee, 31.55183°S, 159.08350°E, 28 May-7 June 2003, I. Hutton (AM KS90465, PBI\_OON 20264); 1 Q, same data (AM KS90588, PBI\_OON 20265); 1 d, same data except 12 Dec. 2003, G. Brown (AM KS90328, PBI\_OON 20267); 1 ♀, same data (AM KS90326, PBI\_OON 20275); 1 ♀, next to Golf Course, walking track to 3rd tee, 31.55183°S, 159.08350°E, 3 June 2003, I. Hutton (AM KS90590, PBI\_OON 20279); 1 &, next to Soldiers Creek, first sites reached, 31.57583°S, 159.08483°E, 8 June 2003, I. Hutton (AM KS90589, PBI\_OON 20276); 1 &, same data except 6 Dec. 2003, G. Brown (AM KS90323, PBI\_OON 20282); 1 d, North Hummock (trail to Intermediate Hill), 31.54233°S, 159.07466°E, 3 Dec. 2000 (AM KS75792, PBl\_OON 20108); 1 &, on Soldiers Creek at northwest junction, 31.57583°S, 159.08483°E, 29 May-8 June 2003, I. Hutton (AM KS90464, PBI\_OON 20271); 1 ♂, 1 ♀, Stevens Reserve, 31.52233°S, 159.05900°E, 30 Sept. 1978, T. Kingston, B. Miller (AM KS102506, PBI\_OON 20527); 1 \, western edge of golf course, left side of clearing, 31.55183°S, 159.08350°E, 6 Dec. 2003, G. Brown (AM KS90327, PBI\_OON 20268); 1 d, same data (AM KS90325, PBI\_OON 20272); 1 d, same data (AM KS90324, PBI\_OON 20284); 1 d, Western slope of Malabar Ridge, S of Kims Lookout trail, 31.50950°S, 159.05516°E, 24 Nov. 1999–1 Dec. 2000 (AM KS75895, PBI\_OON 20104); 1 ♀, North Bay, 31.52000°S, 159.03333°E, 15 Nov. 1978, T. Kingston, B. Miller (AM KS102509, PBI\_OON 20524); 1 o, Roach Island, 31.50000°S, 159.06666°E, Dec. 2002, G.A. Cassis (AM KS90991, PBI\_OON 19140).

Etymology. This species is named in the diminutive form of the Latin *sylvestris*, in reference to the Lord Howe Island Woodhen (*Gallirallus sylvestris*). Many specimens of this *Opopaea* species were captured during surveys for the 'Woodhen project' to save this endangered bird.

Diagnosis. Males and females resemble those of *O. yorki* in having scuto-pedicel region about diameter of pedicel, with additional median ridge, and in males, bulb slightly bulging, tip slightly curved medially, with prolateral incision, but can be recognised by carapace only slightly elevated, and elongated abdomen (Fig. 63A, E).

Description. Male (PBI\_OON 20285, Figs 63A-I). Total length 1.86. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs orange. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes large, ALE: 0.086; PME: 0.080; PLE: 0.069, ALE largest, ALE circular, PME squared; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow smooth, surface smooth. Abdomen, scuto-pedicel region about diameter of pedicel, with paired nearly straight scutal ridges and additional short scutal ridge. Palpal patella 0.298 long, 0.173 wide, connection to femur 0.49; bulb strongly bulging, 'fenestra' with a lateral fold ending in short, spatulate, medially bent tip (Fig. 63 I).

Female (PBI\_OON 23550, Fig. 64A-G). Total length 2.12. Eyes, ALE: 0.086; PME: 0.069; PLE: 0.074. Epigastric area, ventral view, epigastric fold (EF) widely bowed, with tiny median knob; in dorsal view paddle-like sclerite (PSc) with arms bent at the end; nail-like process (Na) small, conical; globular appendix (GAp) funnel-shaped (Fig. 64G).

**Distribution.** This species is known only from Lord Howe Island, New South Wales.

### Opopaea tenuis Baehr, sp. nov. (Figs 65A-J, 66A-G)

Material examined. Holotype ♂: AUSTRALIA: New South Wales: Castlereagh Highway, 1.7 km N of junction with Gwydir Highway, 29.89233°S, 148.15933°E, 13 Dec. 1999; F. Christie, P. Flemons, M. Ełliott (AM KS77545, PBI\_OON 07902). Allotype ♀: 150 m N of bridge over Gingham Watercourse S of Weemelah, 29.22166°S, 149.26733°E, 26 Nov.-16 Dec. 1999, L. Wilkie et al. (AM KS77540, PBI\_OON 07903).

Other material examined. AUSTRALIA: *New South Wales*: 4 \$\displays\$, 150 m N of bridge over Gingham Watercourse S of Weemelah, 29.22166°S, 149.26733°E, 26 Nov.-16 Dec. 1999, L. Wilkie *et al.* (AM KS77540, PBI\_OON 7903); 1 \$\displays\$, Narran Plains Road, 3.8 km N of Narran Lake Road jnct, forest, litter, 29.68900°S, 147.33350°E, 25 Nov.-15 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77546, PBI\_OON 7901); 1 \$\displays\$, Parkdale Station, S of access track to Maynes Lagoon, 28.66716°S, 150.32633°E, 29 Nov.-19 Dec. 1999, L. Wilkie *et al.* (AM KS77544, PBI\_OON 7904).

Etymology. The specific name is a Latin adjective, *tenuis*, meaning thin, fine, delicate refering to the delicate body shape of this species.

Diagnosis. Males and females resemble those of *O. suelewisae* in having a flat body with scutopedicel region less than a diameter of pedicel but can be distinguished by the protruding epigastric scutum, the long posteriorly directed lateral apodemes, 2/3 as long as postepigastric scutum (Fig. 65C). Males similarly have a strongly bulging bulb but have a prolaterally incised, short medially bent bulbal tip (Fig. 65 l). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) with straight arms only bent at the end (Fig. 66G).

Description. *Male* (PBI\_OON 07902, Figs 65A–J). Total length 1.44. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes reduced, ALE: 0.059; PME: 0.058; PLE: 0.044, ALE largest, ALE circular, PME oval; posterior eye row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows

between coxae I-II, II-III, III-IV, furrows with small pits. Abdomen, scuto-pedicel region less than diameter of pedicel with paired curved scutal ridges; epigastric scutum, protruding (Fig. 65E); postepigastric scutum with long posteriorly directed lateral apodemes, about 2/3 as long as postepigastric scutum (Fig. 65C). Palpal patella 0.180 long, 0.110 wide, connection to femur at 0.44; bulb ventrally strongly bulging, with prolaterally incised, short medially bent tip (Fig. 65 I).

Female (PBI\_OON 07903, Fig. 66A-G). Total length 1.62. Eyes, ALE: 0.062; PME: 0.056; PLE: 0.058. Epigastric area, ventral view, epigastric fold (EF) widely bowed, with tiny knob and small median concavity; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end (Fig. 66G); nail-like process (Na) cylindrical; globular appendix (GAp) connected with chitinized area.

Distribution. This species is known only from the Northern border of New South Wales.

# Opopaea ursulae Baehr, sp. nov. (Figs 67A-J)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: 0.7 km N of turnoff to Wyndabyne Station, Warren-Quambone Road, 31.13533°S, 147.84100°E, 13 Dec. 1999, L. Wilkie *et al.* (AM KS77497, PBI\_OON 20184).

Other material examined. AUSTRALIA: New South Wales: 1 &, 14.6 km along track to 'New Chum' from hwy jnctn, 'Trilby', 30.53766°S, 144.80900°E, 1-21 Dec. 1999, F. Christie, P. Flemons, M. Elliott (AM KS77503, PBI\_OON 20183).

Etymology. The specific name is for Ursula Baehr the daughter of the senior author who has helped collecting and databasing Goblin Spiders.

Diagnosis. Males resemble those of *O. suelewisae* in having a flat body with scuto-pedicel region less than the diameter of the pedicel but can be distinguished by fangs with a prolateral row of rough teeth, retrolaterally serrated (Fig. 67H), and a bulbal tip with prolateral ribbed ridge (Fig. 67J).

Description. *Male* (PBI\_OON 20184, Figs 67A-J). Total length 1.21. Prosoma, mouthparts, abdominal scutae and legs pale orange. Carapace ovoid in dorsal view, pars cephalica

slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.059; PME: 0.062; PIE: 0.061, PME largest, ALE oval, PME oval; posterior eye row procurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum flat, as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scuto-pedicel region ½ of diameter of pedicel, with paired curved scutal ridges Fig. 67G). Palpal patella 0.232 long, 0.134 wide, connection to femur at 0.46; bulb ventrally strongly bulging, 'fenestra' with short medially bent fold, prolateral tip with narrow ribbed ridge (Figs 671, J).

Female. Unknown.

Distribution. This species is known only from central New South Wales.

#### Opopaea yorki Baehr, sp. nov. (Figs 68A-J, 69A-G)

Material examined. Holotype ♂: AUSTRALIA: *New South Wales*: Bulls Ground State Forest, litter, 31.55000°S, 152.63333°E, 1 Oct. 1999, A. York (AM KS102563, PBI\_OON 19273). Allotype ♀: collected with holotype (AM KS102548, PBI\_OON 19318).

Other material examined. AUSTRALIA: *New South Wales*: 1 \$\,\text{ Beecroft Reserve}, 33.75000\circ \text{S}, 151.06666\circ \text{E}, 3 June 2001, J. Noble (AM KS72869, PBI\_OON 20363); 1 \$\,\text{J}\$, same data (AM KS72870, PBI\_OON 20368); 1 \$\,\text{Q}\$, Bulls Ground State Forest, litter, 31.55000\circ \text{S}, 152.63333\circ \text{E}, 1 Oct. 1999, A. York (AM KS102608, PBI\_OON 19223); 1 \$\,\text{Q}\$, same data (AM KS102559, PBI\_OON 19223); 1 \$\,\text{Q}\$, same data (AM KS102554, PBI\_OON 19280); 5 \$\,\text{J}\$, 3 \$\,\text{Q}\$, same data (AM KS102564, PBI\_OON 19284); 1 \$\,\text{Q}\$, same data (AM KS102564, PBI\_OON 19285); 1 \$\,\text{Q}\$, same data (AM KS102566, PBI\_OON 19288); 3 \$\,\text{Q}\$, same data (AM KS102522, PBI\_OON 19293); 2 \$\,\text{J}\$, same data (AM KS102522, PBI\_OON 19293); 1 \$\,\text{Q}\$, same data (AM KS102527, PBI\_OON 19300); 1 \$\,\text{Q}\$, same data (AM KS102549, PBI\_OON 19301); 1 \$\,\text{Q}\$, same data (AM KS102549, PBI\_OON 19314); 1 \$\,\text{Q}\$, same data (AM KS102542, PBI\_OON 19314); 1 \$\,\text{Q}\$, same data (AM KS102542, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102542, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19318); 1 \$\,\text{L}\$, same data (AM KS102548, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19318); 1 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19315); 2 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 19318); 1 \$\,\text{J}\$, same data (AM KS102548, PBI\_OON 193342); 1 \$\,\text

same data (AM KS102547, PBI\_OON 23540); 1 3, same data (AM KS102544, PBI\_OON 23542); 1 d same data (AM KS102531, PBI\_OON 23543); 1 ♀ same data (AM KS102589, PBI\_OON 23547); 1 &, 4 ♀, same data (AM KS102600, PBI\_OON 19257); 1 ♂, 1 9, same data (AM KS102591, PBI\_OON 19270); 1 ∂, same data (AM KS102597, PBI\_OON 19267); 1 ♂, 1 ♀, same data (AM KS102587, PBI\_OON 19269); 1  $\emptyset$ ,  $1 \circlearrowleft$ , same data (AM KS102586, PBI\_OON 19272);  $1 \circlearrowleft$ ,  $1 \circlearrowleft$ , same data (AM KS102599, PBI\_OON 19264); 1 ♀, same data (AM KS102584, PBI\_OON 19254); 1 ී, same data (AM KS102606, PBI\_OON 19234); 1 ී, 1 ♀, same data (AM KS102576, PBI\_OON 19268); 1 3, 2 9, same data (AM KS102616, PBI\_OON 19239); 1  $\mathcal{Q}$ , same data (AM KS102670, PBI\_OON 19248); 1 Feb. 2001, 1  $\circ$  (AM KS102579, PBI\_OON 19252); 1 ♀, same data (AM KS102553, PBI\_OON 19278); 1 ♀, same data (AM KS102619, PBI\_OON 19344); 1 \, same data (AM KS102621, PBI\_OON 19341); 1 ♀, same data (AM KS102649, PBI\_OON 19338); 1 \$\,\ \text{same data (AM KS102622, PBI\_OON 19346);} \\ 2 \,\ \text{same data (AM KS102571, PBI\_OON 19249);} \\ 1 \,\ \text{same data (AM KS102605, PBI\_OON 19225);} \\ \ext{same data 1 d, same data (AM KS102603, PBI\_OON 19228); 1 Q, same data (AM KS102610, PBI\_OON 19230); 1 9, same data (AM KS102620, PBI\_OON 19347); 2 9, same data (AM KS102613, PBI\_OON 19231); 1 \$\, same data (AM KS102585, PBI\_OON 19243); 1 \$\psi\$, same data (AM KS102565, PBI\_OON 19245); 1 \$\preceq\$, same data except 1 Mar. 1996 (AM KS102617, PBI\_OON 19233); 1 \$\preceq\$, 1 \$\preceq\$, same data (AM KS102648, PBI\_OON 19345); 1 \$\preceq\$, same data (AM KS102650, PBI\_OON 19343); 5 \$\preceq\$, same data (AM KS102523, PBI\_OON 19308); 2 \$\preceq\$, same data (AM KS102540, PBI\_OON 19322); 4 \$\preceq\$, 2 \$\preceq\$, same data (AM KS102550, PBI\_OON 19321); 1 \$\preceq\$, same data (AM KS102550, PBI\_OON 19312); 2 \$\preceq\$, same data (AM KS102550, PBI\_OO (AM KS102550, PBI\_OON 19312); 2 ♀, same data except 1 Apr. 2000 (AM KS102581, PBI\_OON 19253); 1 ♀, same data (AM KS102519, PBI\_OON 23544); 1 3, same data (AM KS102614, PBI\_OON 23533); 1 3, same data (AM KS102546, PBI\_OON 19298); 1 3, 1 9, same data (AM KS102524, PBI\_OON 19295); 1 9, same data (AM KS102592, PBI\_OON 23532); 1 3, same data (AM KS102567, PBI\_OON 19281); 1 ♀, same data (AM KS102568, PBI\_OON 19283); 1 ♂, same data except 1 Feb. 1994 (AM KS102593, PBI\_OON 19260); 1 ♂, 2 ♀, Cabbage Tree Fire Trail, Buckenbowra State Forest, 35.62516°S, 150.01866°E, 15 Mar. 1999, R. Harris, H. Smith (AM KS68214, PBI\_ OON 7623); 2 ♂, 2 ♀, Crowdy Bay National Park, forest, in litter, 31.81666°S, 152.73333°E, 5 May 2007, K. Edwards (QM S78021, PBI\_OON 06257); 2 3, Myrtle State Forest, litter, 29.19200°S, 153.01833°E, 1 Feb. 1997, A. York (AM KS102831, PBI\_OON 20466).

Etymology. The specific name is for Alan York who collected many specimens of this species and other goblin spiders.

Diagnosis. Males and females resemble those of *O. ottoi* in having a high shouldered carapace and high abdomen with scuto-pedicel region

about diameter of pedicel, both share a field of short setae at postepigastric scutum and in males the prolateral incision at the bulbal tip, but *O. yorki* can be distinguished by the smaller size, the less dense field of setae and the wider bulbal tip (Fig. 68 I). In females the epigastric area in ventral view has epigastric fold (EF) widely triangular and small posterior triangular concavity, posteriorly closed (Fig. 69F).

Description. Male (PBI\_OON 19273, Figs 68A-J). Total length 1.49. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes, ALE: 0.087; PME;0.074; PLE: 0.066, ALE largest, ALE circular, PME squared; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, scutopedicel region about diameter of pedicel, with paired curved scutal ridges, and additional dorsal ridge (Fig. 68G); postepigastric scutum with circular field of thin setae covering 1/3 of postepigastric scutum and short posteriorly directed lateral apodemes. Palpal patella 0.292 long, 0.185 wide; connection to femur at 0.51; bulb slightly bulging, tip slightly curved medially, with prolateral incision (Fig. 68H, I).

Female (PBI\_OON 19318, Figs 69A–G). Total length 1.69. Eyes, ALE: 0.082; PME: 0.076; PLE: 0.066. Epigastric area, ventral view epigastric fold (EF) widely triangular and small posterior triangular concavity, posteriorly closed; in dorsal view paddle-like sclerite (PSc) with arms bent at the end; nail-like process (Na) conical; globular appendix (GAp) mushroom-shaped extension (Fig. 69G).

**Distribution.** This species is widespread along the coastal areas of New South Wales.

# SPECIES FROM NORTHERN TERRITORY Key to species

	Treat and the second				
	Males				
	Scuto-pedicel region high, about diameter of pedicel (Fig. 76G)				
_					
3.	Paired scutal ridges absent, concavity				

between anterior and posterior spiracles

- Bulbal tip prolateral fold absent (Figs 71H, I)
   ......6
- 5. Bulbal tip narrow, prolaterally semicircular (Figs 73H, I) . . . . . . . . . O. gilliesi
- Bulbal tip broad, prolaterally triangular (Figs 70H, I) . . . . . . O. ephemera
- 6. Paired scutal ridges absent, bulbal tip long, trunk-shaped (Figs 75H, I).... O. jolurdingae
- Paired scutal ridges present, bulbal tip short, with tiny hook (Figs 71H, I) . . . O. fishriver

- Scuto-pedicel region about ½ of diameter of pedicel (Fig. 72E)..........O. fishriver

# Opopaea ephemera Baehr, sp. nov. (Figs 70A-J)

Material examined. Holotype ♂: AUSTRALIA: Northern Territory: Fish River Station, B5a, vine thicket and eucalypt among boulders, litter, 14.07388°S, 130.78583°E, 22 Apr.–3 May 2012, R. Whyte (MAGNT, PBI\_OON 23644).

Other material examined. AUSTRALIA: *Northern Territory*: 2 \$\(\delta\), Fish River Station, F26, Heath woodland on sandstone, heathland, litter, 14.04750°S, 130.76638°E, 22 Apr.-3 May 2012, R. Whyte (QM S91155, PBI\_OON 23645); 1 \$\delta\], Fish River STN B5a, vine thicket and eucalypt among boulders, litter, 14.07388°S, 130.78583°E, 22 Apr.-3 May 2012, R. Whyte (QM S91159, PBI\_OON 23647).

Etymology. The specific name is a noun, the plural neuter of *ephemeron* and *ephemeros*, Greek and New Latin for something which lasts a short period of time. The species name refers to the location, an ephemeral waterway at Fish River Station.

Diagnosis. Males resemble those of *O. gilliesi* in having a flat body, with scuto-pedicel region only ½ of diameter of pedicel, paired scutal ridges slightly arched and the broad prolaterally striated and incised bulbal tip but can easily be recognised by book lung covers with longitudinal ridge (Fig. 70G) and the tip with triangular striated prolateral fold (Fig. 70 I).

Description. Male (PBI\_OON 23644, Figs 70A-J). Total length 1.20. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace slightly elevated in lateral view, with angular posterolateral corners; lateral margin rebordered, straight, without denticles. Eyes, ALE: 0.062; PME: 0.060; PLE: 0.045, ALE largest, ALE circular, PME oval; posterior eye row recurved from above; PME touching for less than half their length. Abdomen, book lung covers with longitudinal ridge; scuto-pedicel region 1/2 diameter of pedicel, paired scutal ridges not touching. Palpal patella 0.244 long, 0.133 wide, connection to femur at 0.48; bulb stout, ventrally strongly bulging, tip broad with triangular striated prolateral fold, 'fenestra' small.

Female. Unknown.

**Distribution.** This species is known only from the type locality in the Northern Territory.

*Opopaea fishriver* Baehr, sp. nov. (Figs 71A-J, 72A-G)

Material examined. Holotype ♂: AUSTRALIA: *Northern Territory*: Fish River Station, F 26, Heath woodland on sandstone, heathland, litter, 14.04750°S, 130.76638°E, 22 Apr.–3 May 2012, R. Whyte (MAGNT, PBI\_OON 23641). Allotype ♀: collected with holotype (MAGNT, PBI\_OON 23642).

Other material examined. AUSTRALIA: Northern Territory: 2 Å, Fish River Station, F 26, Heath woodland on sandstone, heathland, litter, 14.04750°S, 130.76638°E, 22 Apr.–3 May 2012, R. Whyte (QM S91158, PBI\_OON 23642); 1 ♀, Fish River Stn 510, Lowland Monsoon Forest, monsoon rainforest, litter, 13.80000°S, 130.71666°E, 22 Apr.–3 May 2012, R. Raven (QM S92323, PBI\_OON 23663); 1 ♀, Fish River Stn. S24a/b, riparian monsoon forest, litter, 14.03333°S, 130.75000°E, 22 Apr.–3 May 2012, R. Whyte (QM S92322, PBI\_OON 23643); 1 ♂, same data (QM S92322, PBI\_OON 23643).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. johardingae* in body shape, having a scuto-pedicel region only ½ of diameter of pedicel but can easily be recognised by the well developed, slightly arched, paired scutal ridges, the wide concavity with weak triangular extension between the lateral apodemes (Fig. 71C) and the narrow tip with tiny prolateral hook and distal incision (Fig. 71 l). Females by epigastric area with tiny knob in dorsal view paddle-like sclerite (PSc) with strongly bowed arms (Fig. 72G).

Description. Male (PBI\_ OON 23641, Figs 71A-J). Total length 1.32. Prosoma, mouthparts, abdominal scutae and legs pale orange, palpal patella orange brown. Carapace broadly oval in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners; lateral margin rebordered, without denticles. Eyes, ALE: 0.076, PME: 0.072, PLE: 0.069, ALE largest, ALE circular, PME squared; posterior eye row recurved from above; PME touching throughout most of their length. Abdomen, book lung covers with diagonal ridge; scuto-pedicel region less than diameter of pedicel, paired scutal ridges just touching (Fig. 71G); postepigastric scutum, between lateral apodemes concave with wide, weak triangular extension (Fig. 71C). Palpal patella 0.270 long, 0.400 wide, connection to femur at 0.53; bulb ventrally slightly bulged, tip narrow with tiny prolateral hook and distal incision, 'fenestra' small (Figs 71H, 1).

Female (PBl\_OON 23642, Figs 72A-G). Total length 1.50. Eyes, ALE: 0.073, PME: 0.069, PLE: 0.059. Epigastric area, ventral view chitinized area (Ch) widely bowed, with tiny knob; in dorsal view

paddle-like sclerite (PSc) with strongly bowed arms (Fig. 72G); nail-like process (Na) conical; globular appendix (GAp) globular extension.

**Distribution.** This species is known only from the type locality in the Northern Territory.

# *Opopaea gilliesi* Baehr, sp. nov. (Figs 73A-J, 74A-G)

Material examined. Holotype ♂: AUSTRALIA: *Northern Territory:* Wongalara Wildlife Sanctuary, litter, 14.15277°S, 134.16111°E, (3 June 2012, M.S. Harvey (MAGNT, PBl\_ OON 23658). Allotype ♀: collected with holotype (MAGNT, PBl\_OON 23659).

Other material examined. AUSTRALIA: Northern Territory: 1 &, Wongalara Wildlife Sanctuary, litter, 14.15277°S, 134.16111°E, 3 June 2012, M.S. Harvey (WAM T125975, PBI\_OON 23660).

Etymology. This species is name for Chris Gillies of the Earthwatch Institute Australia, recognising his field assistance during the Wonglara BushBlitz.

Diagnosis. Males resemble those of *O. ephemera* in having a flat body, with scuto-pedicel region only ½ of diameter of pedicel, paired scutal ridges slightly arched and broad, prolaterally striated and incised bulbal tip but can easily be recognised by book lung covers without longitudinal ridge and bulbal tip with semicircular striated prolateral fold (Fig. 73 l). Females by epigastric area with tiny knob and wide concavity between lateral apodemes (Fig. 74G).

Description. Male (PBI\_OON 23658, Figs 73A-J). Total length 1.10. Prosoma, mouthparts, abdominal scutae and legs pale orange. Carapace slightly elevated in lateral view, with angular posterolateral corners; lateral margin rebordered, straight, without denticles. Eyes, ALE: 0.057, PME: 0.057, PLE: 0.049, ALE, PME subequal, larger than PLE, ALE circular, PME oval; posterior eye row recurved from above; PME touching for less than half their length. Abdomen, scuto-pedicel region 1/2 diameter of pedicel, paired scutal ridges arched, touching. Palpal patella 0.243 long, 0.125 wide, connection to femur at 0.52; bulb ventrally strongly bulging, tip broad with semicircular striated prolateral fold, 'fenestra' larger, distally situated.

Female (PBI\_OON 23659, Figs 74A-G). Total length 1.33. Eyes, ALE: 0.058, PME: 0.053, PLE: 0.042. Epigastric area, ventral view chitinized area (Ch) widely triangular, with tiny knob and wide concavity between lateral apodemes (Fig. 74G).

Distribution. This species is known only from the type locality in the Northern Territory.

#### Opopaea johardingae Baehr, sp. nov. (Figs 75A-J)

Material examined. Holotype ♂: AUSTRALIA: *Northern Territory:* Fish River STN B5a, savannah woodland, litter, 14.07388°S, 130.78583°E, 22 Apr. 2012–3 May 2012, R. Whyte (MAGNT, PBI\_OON 23562).

Etymology. The specific name is for Jo Harding, Bush Blitz Manager of the Australian Biological Resources Study (ABRS), honoring her incredible enthusiasm for Australia's nature.

Diagnosis. Males resemble those of *O. fishriver* in body shape, having a scuto-pedicel region only ½ of diameter of pedicel but can easily be recognised by the absence of paired scutal ridges (Fig. 75G), an elongated opisthosoma with no concavity or extension, and the long and trunk-shaped bulbal tip (Fig. 75 I).

Description. *Male* (PBI\_ OON 23652, Figs 75A-J). Total length 1.22. Prosoma, mouthparts, abdominal scutae and legs pale orange, palps orange brown. Carapace ovoid, pars cephalica flat in lateral view, with rounded posterolateral corners; lateral margin rebordered, without denticles. Eyes, ALE: 0.051; PME: 0.059; PLE: 0.039, PME largest, ALE circular, PME squared; PME touching throughout most of their length. Abdomen, scuto-pedicel region 1/2 diameter of pedicel, paired scutal ridges absent. Palpal patella 0.243 long, 0.129 wide, connection to femur at 0.52; bulb ventrally slightly bulged, tip long and narrow trunk-shaped, 'fenestra' small, dorsally situated (Fig. 75 I).

Female. Unknown.

**Distribution.** This species is known only from the type locality in the Northern Territory.

### *Opopaea preecei* Baehr, sp. nov. (Figs 76A–J, 77A–H)

Material examined. Holotype ♂: AUSTRALIA: *Northern Territory:* Fish River Station, F 26, heath woodland on sandstone, 14.04750°S, 130.76638°E, 22 Apr. 2012–3 May 2012, R. Whyte (MAGNT, PBI\_OON 23649). Allotype ♀: collected with holotype (MAGNT, PBI\_OON 23650).

Other material examined. AUSTRALIA: Northern Territory: 1 ♂, collected with holotype (QM S92324, PBI\_OON 23649); 1 ♀, Fish River Station, S10, lowland monsoon forest, litter, 13.80000°S, 130.71666°E, 22 Apr.-3 May 2012, R. Raven (QM S92327, PBI\_OON 23653).

Etymology. The specific name is for Michael Preece, Director of the Australian Biological Resources Study (ABRS), which supports taxonomic work in Australia.

Diagnosis. Males and females resemble those of *O. fishriver* in general body shape and having a wide concavity between the lateral apodemes but can easily be recognised by scuto-pedicel region about diameter of pedicel, paired scutal ridges absent (Fig. 76G) and in males a 'fenestra' with long fold ending in long narrow prolateral directed trunk-shaped tip. (Fig. 76 I). Females by epigastric area with well defined posterior triangular concavity (Figs 77G, I).

Description. Male (PBI\_ OON 23649, Figs 76A-J). Total length 1.31. Prosoma, mouthparts, abdominal scutae and legs pale orange, palps orange brown. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners; lateral margin undulate, without denticles. Eyes, ALE: 0.067; PME: 0.064; PLE: 0.053, ALE largest, ALE circular, PME circular; posterior eye row straight from above; PME touching for less than half their length. Abdomen, scuto-pedicel region about diameter of pedicel, paired scutal ridges absent (Fig. 76G); postepigastric scutum between anterior spiracles and posterior spiracles with deep concavity. Palpal patella 0.293 long, 0.150 wide, connection to femur at 0.51; bulb ventrally slightly bulging, 'fenestra' with long fold ending in long, narrow prolaterally directed trunkshaped tip (Fig. 76H).

Female (PBl\_OON 23650, Figs 77A-H). Total length 1.45. Eyes, ALE: 0.074; PME: 0.057; PLE: 0.045. Epigastric area, ventral view, chitinized

area (Ch) widely triangular with well defined posterior triangular concavity, knob tiny; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) concave; globular appendix (GAp) a large, conical extension (Figs 77G, H).

**Distribution.** This species is known only from the type locality in the Northern Territory.

## Opopaea wongalara Baehr, sp. nov. (Figs 78A-J)

Material examined. Holotype ♂: AUSTRALIA: *Northern Territory:* Wongalara Wildlife Sanctuary, litter, 14.15277°S, 134.16111°E, 3 June 2012, M.S. Harvey (MAGNT, PBI\_OON 23657).

**Etymology**. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. fishriver* in having a wide concavity with weak extension between the lateral apodemes and well developed, slightly arched, paired scutal ridges but can easily be recognised by the scuto-pedicel region about diameter of pedicel and complicated bulbal tip with ventral and prolateral ridge, 'fenestra' dorsally situated with fold connecting to prolateral ridge (Fig. 78H, I).

Description. Male (PBI\_ OON 23657, Figs 78A-J). Total length 1.39. Prosoma, mouthparts, abdominal scutae and legs pale orange, palps orange brown. Carapace broadly oval, pars cephalica slightly elevated in lateral view, with angular posterolateral corners; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.073; PME: 0.074; PLE: 0.060, PME largest, ALE oval, PME oval; posterior eye row recurved from above; PME touching for less than half their length. Abdomen, book lung covers with longitudinal ridge; scuto-pedicel region about diameter of pedicel, paired scutal ridges touching at middle (Fig. 78G); postepigastric scutum between lateral apodemes and posterior margin with long concavity with wide central ridge (Fig. 78C). Palpal patella 0.302 long, 0.154 wide, connection to femur at 0.51; bulb ventrally slightly bulging, tip long with ventral and prolateral ridge, 'fenestra' dorsally situated with fold connecting to prolateral ridge (Fig. 78H; I).

Female. Unknown.

Distribution. This species is known only from the type locality in the Northern Territory.

#### SPECIES FROM QUEENSLAND Key to species

The eight species known from Lamington National Park (O. antoniae, O. jonesae, O. leica, O. olivernashi, O. rogerkitchingi, O. sown, O. speighti and O. yukii) are not included in this key as there is a key available in Baehr (2011).

- Males
   Females (unknown for O. brisbanensis, O. carnarvou, O. chrisconwayi, O. mcleani, O. proserpine)

- 3. Abdomen with paired scutal ridges and additional median ridge (as Fig. 88G) . . . 4
- Abdomen with paired scutal ridges but no median ridge (e.g. Fig. 96G)......
- Patella attached to femur subbasally, cymbium separated by seam (Fig. 98I) . . 5
- Abdomen with longitudinal ridge between apodemes (Fig. 84C) . . . . O. carnarvon
- 6. Abdomen with conical protrusion between apodemes (Fig. 85C) . . . . . O. carteri
- 7. Sternum with posterior ridge (Fig. 96B) ...... O. stanisici
- Sternum without posterior ridge (Fig. 94B). 8
- 8. Cymbium with dense field of plumose setae at the top (Fig. 94 I) . . . . O. mcleani
- Cymbium evenly covered with plumose

	setae (as Fig. 87J)	apodemes (Fig. 86G) O. carteri
9	9. Bulbal tip with prolateral spine-shaped extension, 'fenestra' small (Fig. 87I, J)	<ul> <li>19. Abdomen with paired scutal ridges short (Fig. 97E)</li></ul>
1	elongated (Figs 90H, I) O. lambkinae  10. Bulb with 2 strong prolateral spines (as Fig. 79 I)	20. Paddle-like sclerite (PSc) with short arms, not reaching epigastric fold (Fig. 83H) O. broadwater
	- Bulb without prolateral spines (as Fig. 82H)	<ul> <li>Paddle-like sclerite (PSc) with bent arms reaching epigastric fold (Fig. 80H) 21</li> </ul>
	11. Sternum between furrows I-II and II-III bulging (Fig. 79B) O. ameyi  — Sternum between furrows I-II and II-III not bulging (as Fig. 92B)	<ul> <li>21. Scuto-pedicel region less than ½ of diameter of pedicel (Fig. 80F)</li></ul>
1	<ul><li>12. Bulbal tip with long prolateral incision, reaching 'fenestra' (Fig. 92H) O. leichhardti</li><li>Bulbal tip, with short prolateral incision</li></ul>	<ul><li>22. Receptaculum opening situated close to epigastric furrow (Figs 93G, H) O. leichhardti</li><li>23. Receptaculum opening situated quite far</li></ul>
1	(Fig. 81H) O. brisbanensis	from epigastric furrow (Platnick & Dupérré, 2009: figs 91, 92, 97, 98) O. concolor
	<ul> <li>13. Bulbal tip broad with huge prolateral fold; 'fenestra' large (Figs 95H, I)O. proserpine</li> <li>Bulbal tip without huge prolateral fold; 'fenestra' small (Figs 82H, I)</li></ul>	Opopaea ameyi Baehr, sp. nov. (Figs 79A-J, 80A-H)
	<ul> <li>14. Bulbal tip long, spatulate (Figs 82H, I)O. broadwater</li> <li>Bulbal tip short and squat (Platnick and Dupérré, 2009: fig. 102)O. concolor</li> </ul>	Material examined. Holotype ♂: AUSTRALIA: <i>Queensland</i> : Toomba Homestead site, 395 m, 19.96736°S, 145.57485°E, 28 Sept.–17 Dec. 2006, R. Raven, A. Amey, B. Baehr (QM S95146, PBI_OON 06021). Allotype ♀: collected with holotype (QM S81351, PBI_OON 06021).
1	15. 1 Scuto-pedicel region about diameter of pedicel (as Fig. 89E)	Etymology. The specific name is for Andrew Amey who was one of the collectors of the types.
-	- Scuto-pedicel region about ½ of diameter of pedicel or less	Diagnosis. Males resemble those of <i>O. brishaneusis</i> in having flat body with scutopedicel region less than diameter of pedicel
1	16. Abdomen with paired scutal ridges and additional median ridge (as Fig. 89E) 17	as well as two strong prolateral spines at the base of the bulb, but can be distinguished by
	<ul> <li>Abdomen with paired scutal ridges but no median ridge (as Fig. 80F)</li></ul>	sternum between furrows 1-II and II-III being bulging, by lacking the infra-coxal grooves and paired scutal ridges having the two spines close
	<ul> <li>17. Paddle-like sclerite (PSc) with long bent arms (Fig. 89G)</li></ul>	together, a relatively open 'fenestra' with wide lateral fold and a ribbed prolateral bulb tip (Fig. 79 I). Females resemble <i>O. broadwat</i> in having a flat body and the sternum betwee furrows I-II and II-III being bulging, but cabe separated by epigastric area, dorsal vie paddle-like sclerite (PSc) with widely bent arm reaching epigastric fold (Fig. 80H).
1	<ul> <li>18. Triangular plate as wide as lateral apodemes (Fig. 99G)</li></ul>	

Description. Male (PBI\_OON 06021, Figs 79 A -J). Total length 1.10. Prosoma, mouthparts and abdominal scutae pale orange, palpal patella orange brown, legs yellow. Carapace ovoid in dorsal view, pars cephalica flat in lateral view, with rounded posterolateral corners, top smooth, sides striated; lateral margin rebordered, without denticles. Eyes, ALE: 0.045; PME: 0.041; PLE: 0.037, ALE largest, PME circular; posterior eve row recurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum, furrows between coxae reduced, smooth, lateral margin without infra-coxal grooves (Fig. 79B), area between furrows I-II and II-III bulging. Abdomen, book lung covers large, ovoid; scuto-pedicel region less than diameter of pedicel, paired scutal ridges reduced; postepigastric scutum with short posteriorly directed lateral apodemes. Palpal patella 0.220 long, 0.114 wide, connection to femur at 0.45; bulb ventrally slightly bulging with two strong prolateral basal spines close together, a relatively open 'fenestra' with a wide lateral fold and a ribbed prolateral bulbal tip (Fig. 79 I).

Female (PBI\_OON 6021, Figs 80A-H). Total length 1.13. Eyes, ALE: 0.055; PME: 0.048; PLE: 0.044. Epigastric area, ventral view, epigastric fold (EF) with triangular median part; in dorsal view paddle-like sclerite (PSc) with widely bent arms reaching epigastric fold reaching EF (Fig. 80H); nail-like process (Na) triangular; globular appendix (GAp) divided into rounded hood and short drop-shaped extension.

**Distribution.** This species is known only from the type locality in central Queensland.

#### Opopaea antoniae Baehr

Opopaea antoniae Baehr, 2011: 418, figs 1, 11-14, 16-19, 23-25, 46, 47, 63.

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. Males resemble *O. olivernashi* in colour and eye size. Females and males of *O. autoniae* can be separated from all other species of *Opopaea* known from Lamington National

Park by their small, round and darker brown book lung covers. Males of *O. autoniae* and *O. oliveruashi* are the only Lamington species with a retrolateral seam between the bulb and cymbium. Males of *O. autoniae* can be easily separated from *O. olivernashi* by their slimmer patella. Females of *O. autoniae* can be distinguished from all other *Opopaea* species from Lamington National Park by the broad triangular chitinized area (Ch) near the genital opening.

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

**Distribution.** This species is known only from the southeast corner of Queensland and northeastern New South Wales Baehr (2011).

## Opopaea brisbanensis Baehr, sp. nov. (Figs 81A-J)

Material examined. Holotype ♂: AUSTRALIA: *Queensland:* Gold Creek Reservoir, site 1, spotted gum open forest, litter, 27.45883°S, 152.87200°E, 1 Dec. 2003–2 Jan. 2004, Queensland Museum Party (QM S91122, PBI\_OON 19047).

Other material examined. AUSTRALIA: *Queensland*: 2 Å, Gold Creek Reservoir, site 1, spotted gum open forest, litter, 27.45883°S, 152.87200°E, 1 Dec. 2003–2 Jan. 2004, Queensland Museum Party (QM S54708, PBI\_OON 19235).

**Etymology**. The specific name is an adjective taken from the type locality.

Diagnosis. Males resemble those of *O. ameyi* in having a flat body with a scuto-pedicel region less than diameter of the pedicel as well as two strong prolateral spines at the base of the bulb, but can be distinguished by having two spines about half their length apart (Fig. 81H), a narrow 'fenestra' without a wide lateral fold and a prolateral tip with a short incision (Fig. 81 I).

Description. *Male* (PBI\_OON 19235, Figs 81A-J). Total length 1.18. Prosoma, mouthparts and abdominal scutae pale orange; palpal patella orange brown, legs yellow. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners. Eyes, ALE: 0.054; PME: 0.061; PLE: 0.051, PME largest, PME oval; posterior eye

row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum furrows between coxae reduced, smooth, lateral margin with infra-coxal grooves and anterior and posterior openings. Abdomen, scuto-pedicel region ½ diameter of pedicel with paired scutal ridges connected at middle. Palpal patella 0.231 long, 0.124 wide, connection to femur at 0.41; bulb ventrally bulging at base, with two strong prolateral basal spines about half their length apart, narrow 'fenestra' and incised tip (Figs 81H, I).

Female. Unknown.

**Distribution.** This species is known only from the Brisbane area in south-eastern Queensland.

## Opopaea broadwater Baehr, sp. nov. (Figs 82A-J, 83A-H)

Material examined. Holotype ♂: AUSTRALIA: *Queensland:* Lake Broadwater via Dalby, 27.35000°S, 151.10000°E, 17 May-25 Nov. 1985, M. Bennie (QM S78194 PBI (PBI\_OON 06624). Allotype ♀: collected with holotype (QM S91147, PBI\_OON 23612).

Other material examined. AUSTRALIA: *Queensland*: 2 3, 6  $\$ , Lake Broadwater via Dalby, 27.35000°S, 151.10000°E, 17 May-25 Nov. 1985, M. Bennie (QM S91148, PBI\_OON 23613).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males and females resemble those of *O. ameyi* in general body shape, having a scutopedicel region about ½ diameter of pedicel, paired scutal ridges strong, and a additional median ridge. Males similarly have a medial attachment of the palpal femur but can be distinguished by the long, spatulate, medially bent tip and small 'fenestra' (Fig. 82 I). Females can be distinguished by the epigastric area in dorsal view with paddle-like sclerite (PSc) with straight arms bent at the end (Fig. 83H).

Description. *Male* (PBl\_OON 06624, Figs 82A–J). Total length 1.49. Prosoma, mouthparts and abdominal scutae pale orange, legs white. Carapace with angular posterolateral corners; lateral margin with blunt denticles. Eyes, ALE: 0.069; PME: 0.076; PLE: 0.062, PME

largest, PME oval; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, furrows with rows of small pits, microsculpture only in furrows. Abdomen, scuto-pedicel region ½ diameter of pedicel, paired scutal ridges strong, connected at middle with additional median ridge. Palpal patella 0.317 long, 0.171 wide, connection to femur at 0.58; bulb ventrally slightly bulging, completely fused to cymbium, tip long, spatulate, medially bent with small 'fenestra' (Fig. 82 I).

Female (PBI\_OON 6624, Figs 83A-H). Total length 1.65. Eyes, ALE: 0.075; PME: 0.070; PLE: 0.070. Epigastric area, ventral view, epigastric fold (EF) slightly bowed, with tiny knob; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) long conical; globular appendix (GAp) globular.

**Distribution.** This species is known only from Lake Broadwater in southern Queensland.

## Opopaea carnarvon Baehr, sp. nov. (Figs 84A-l)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Carnarvon Gorge National Park, forest, litter, 25.03333°S, 148.23333°E, 5–9 Aug. 2011, B. Baehr (QM S95147, PBI\_OON 23602).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. ulrichi* in having a high shouldered carapace and high abdomen with scuto-pedicel region about diameter of pedicel, both share a subbasally attached femur and a strongly bulging bulb separated from the cymbium by a seam, but can be distinguished by the longitudinal ridge covering the anterior 1/3 of postepigastric scutum (Fig. 84C).

Description. *Male* (PBI\_OON 0002302, Figs 84A-I). Total length 1.40. Prosoma, mouthparts, abdominal scutae and legs orange brown. Carapace high shouldered, with angular

posterolateral corners, sides striated; lateral margin without denticles. Eyes, ALE: 0.072; PME: 0.067; PLE: 0.056, ALE largest, PME squared; posterior eye row straight from above, procurved from front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum as long as wide, furrow with rows of small pits. Abdomen, scuto-pedicel region about diameter of pedicel, with strong paired scutal ridges and additional median ridge; postepigastric scutum with longitudinal ridge covering anterior 1/3 (Fig. 84C). Palpal patella 0.145 long, 0.098 wide, attachment to femur subbasal at 0.31; bulb ventrally strongly bulging, separated from cymbium by seam, tip long, thin, bent medially with small 'fenestra' (Figs 84 F-H).

Female. Unknown.

Distribution. This species is known only from Carnarvon National Park in central Queensland.

Opopaea carteri Baehr, sp. nov. (Figs 85A-J, 86A-G)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Redlands, scribbly gum open forest, litter, 249 m, 27.90000°S, 153.40000°E, 19 Jan.-19 Feb. 2009, R.J. Raven (QM S86904, PBI\_OON 23407). Allotype ♀: Mt Cotton, Sandy Creek Cons Area, litter, 40 m, 27.98333°S, 153.40000°E, 1-21 Dec. 2009, R. Raven (QM S88184, PBI\_OON 23479).

material examined. **AUSTRALIA:** Queensland: 1 &, Belmont Hills Bushlands, site 1, 27,50784°S, 153.11750°E, 2-29 Jan. 2004, Queensland Museum Party (QM S54710, PBI\_OON 6900); 1 ♀, Boondall Wetlands, site 1, Melaleuca woodland, litter, 27.33683°S, 153.07120°E, 30 Jan.-1 Mar. 2004, QM Party (QM S79475, PBI\_OON 20735); 1 &, same data (QM \$79475, PBI\_OON 20735); 5 d, Buhot Creek, Burbank, 27.58783°S, 153.16980°É, 17 Apr. 2003, C. Burwell, S. Wright, E. Volschenk (QM S62248, PBI\_ OON 6858); 1 💍, Chelsea Road Bushlands Reserve, 27.47634°S, 153.18580°E, 16 Apr. 2003, C. Burwell, S. Wright (QM S62542, PBI\_OON 6854); 5 ♂, 3 ♀, Gold Creek Reservoir, site 1, 27.45883°S, 152.87200°E, 1–30 Oct. 2003, QM Party (QM S54711, PBI\_OON 6819); 9 ♂, 7 ♀, same data (QM S54714, PBI\_OON 6852); 13 ♂, 10 ♀, same data except 1 Dec. 2003–2 Jan. 2004 (QM S91123, PBI\_OON 21530); 6 ♂, 3 ♀, Karawatha Forest, site 6, 27.62217°S, 153.08730°E.

2-31 Oct. 2003, QM Party (QM S67311, PBI\_OON 6820); 1 ♂, 1 ♀, 17 Apr.-26 May 2003, C. Burwell, S. Wright, E. Volschenk (QM S62705, PBI\_OON 6825); 5 ♂, 2 ♀, 1-29 July 2003, S. Wright, E. Volschenk (QM S62914, PBI\_OON 6838); 3 ♂, 31 Mar.-29 Apr. 2004, QM Party (QM S67315, PBI\_OON 6851); 1 ♂, Lota Creek, Manly West, Melaleuca woodland, litter, 5 m, 27.49527°S, 153.18555°E, 19 Mar. 2006, M. Ramírez, R. Raven, B. Baehr, C. Griswold, D. Silva (QM S87991, PBI\_OON 7503); 5 ♂, N Stradbroke Island, "Gordon" (Gc), 75 m, 27.65000°S, 153.40000°E, U. Nolte (QM S40988, PBI\_OON 6803).

**Etymology.** The specific name is a patronym in honor of Mr. Dan Carter of Redlands City Council.

Diagnosis. Males and females resemble those of *O. ulrichi* in having a high shouldered carapace and high abdomen with scuto-pedicel region about the diameter of the pedicel, in male both sharing a more subbasally attached femur and a strongly bulging bulb, separated from cymbium by a seam, but distinguished by the 2 strong prolateral basal spines (Fig. 85H) and the postepigastric scutum with conical protrusion between the anterior and posterior spiracles (Figs 85C, F). In females the epigastric area in ventral view has epigastric fold (EF) strongly triangular, triangle not reaching ½ of concavity (Fig. 86F).

Description. Male (PBI\_OON 23407, Figs 85A-J). Total length 1.37. Prosoma, mouthparts, abdominal scutae and legs yellow-brown. Carapace with angular posterolateral corners, sides striated; lateral margin without denticles. Eyes, ALE: 0.080; PME: 0.076; PLE: 0.060, ALE largest, PME squared; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Abdomen, scutopedicel region about diameter of pedicel, with strong paired scutal ridges and additional median ridge (Fig. 85G); postepigastric scutum with conical protrusion between the anterior and posterior spiracles (Fig. 85C, F). Palpal patella attached subbasally, 0.164 long, 0.105 wide, connection to femur at 0.31; bulb ventrally strongly bulging, basally separated from cymbium, with 2 strong prolateral basal spines, tip long, thin, bent medially (Fig. 85C, F).

Female (PBI\_OON 23479, Figs 86A-F). Total length 1.61. Eyes, ALE: 0.076; PME: 0.069; PLE: 0.062. Epigastric area, ventral view, epigastric fold (EF) strongly triangular with posterior concavity between lateral apodemes; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) narrow conical; globular appendix (GAp) cylindrical (Fig. 86G).

**Distribution.** This species is known only from the Brisbane area in South East Queensland.

Opopaea chrisconwayi Baehr & Smith, sp. nov. (Figs 87A-K)

Material examined. Holotype 3: AUSTRALIA: Queensland: Mt Cotton, Sandy Creek Conservation Area, litter, 40 m, 27.98333°S, 153.40000°E, 1–31 Jan 2010, R. Raven (QM S88255, PBI\_OON 23469).

Other material examined. AUSTRALIA: Queensland: 1 &, Mt Cotton, Sandy Creek Conservation Area, litter, 40 m, 27.98333°S, 153.40000°E, 1-31 Jan 2010, R. Raven (QM S88255, PBI\_OON 23470); 1 &, Redlands, Eastern Escarpment Conservation Area, litter, 120 m, 27.98333°S, 153.35000°E, 1 Jan.-5 Feb. 2010, J. Stanisic (QM S84849, PBI\_OON 23471).

**Etymology.** The specific name is for Chris Conway, who supplied Helen Smith with coffee and tall tales during many visits to London.

Diagnosis. Males resemble those of *O. lambkinae* in having no median scutal ridge, a medially attached femur and a prolaterally incised palpal tip, but can easily be distinguished by a spine-shaped extension, 'fenestra' small (Figs 87I, J).

Description. *Male* (PBI\_OON 23469, Figs 87A–K). Total length 1.33. Prosoma, mouthparts abdominal scutae and legs pale orange, palpal patella orange brown. Carapace broadly oval, pars cephalica slightly elevated with rounded posterolateral corners, sides striated; lateral margin with blunt denticles. Eyes, ALE: 0.061; PME: 0.062; PLE: 0.054, PME largest, PME squared; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, furrows with small pits. Abdomen, scuto-pedicel region about diameter of pedicel, paired scutal

ridges weak, not connected at middle. Palpal patella 0.289 long, 0.155 wide, connection to femur 0.51; bulb ventrally slightly bulging with incised prolateral tip and a spine-shaped extension, 'fenestra' small (Fig. 87I, J).

Female. Unknown.

**Distribution.** This species is known only from the Brisbane area in South East Queensland.

*Opopaea douglasi* Baehr, sp. nov. (Figs 88A-J, 89A-G)

Material examined. Holotype ♂: AUSTRALIA: *Queensland:* Redlands, scribbly gum open forest, Leaf Litter, 249m, 27.90000°S, 153.40000°E, 21 Nov.-19 Dec. 2008, R. Raven (QM S86919, PBI\_OON 23422). Allotype ♀: collected with holotype (QM S86919, PBI\_OON 23423).

examined. **AUSTRALIA:** material Other Queensland: 1 8, Belmont Hills Bushlands, site 1, 27.50784°S, 153.11750°E, 28 July-1 Sept. 2003, QM Party (QM S62221, PBI\_OON 6841);  $4 \stackrel{?}{\circ}$ ,  $3 \stackrel{?}{\circ}$ , Karawatha Forest, site 6, 27.62217°S, 153.08730°E, 31 Oct.-1 Dec. 2003, QM Party (QM S67312, PBI\_OON 6835); 1 ♂, Mt Cotton, Sandy Creek Conservation Area, litter, 40 m, 27.98333°S, 153.40000°E, 1 Feb.-4 Mar. 2010, R.J. Raven (QM S88255, PBI\_OON 23438); 1 d, same data (QM S84849, PBI\_OON 23452); 7 d, same data (QM S88214, PBI\_OON 23463); 2 d same data except 9 Feb. 2010, A. Nakamura (QM S88354, PBI\_OON 23455); 3 3, 1-21 Dec. 2009, R. Raven (QM S88227, PBI\_OON 23458); 2 3, Redlands, scribbly gum open forest, litter, 249 m, 27.90000°S, 153.40000°E, 19 Jan.-19 Feb. 2009, R.J. Raven (QM S86904, PBI\_OON 23408); 4 d, same data (QM S79338, PBI\_OON 23410); 1 d, same data (QM S79381, PBI\_OON 23416); 3 &, same data (QM \$86935, PBI\_OON 23417); 1 &, same data (QM \$79326, PBI\_OON 23419); 2 &, 2 \, 21 Nov.-19 Dec. 2008, R. Raven (QM S86919, PBI\_OON 23421); 2 ♀, Redlands, Eastern Escarpment Conservation Area, litter, 120 m, 27.98333°S, 153.35000°E, 1 Mar.-12 May 2010, J. Stanisic (QM S84858, PBI\_OON 23464); 2 \(\Pi\) 1 Feb.-4 Mar. 2010, R. Raven (QM S88166, PBI OON 23473); 1  $\,^\circ$ , same data except 10 Feb. 2010 (QM S84904, PBI\_OON 23477); 2  $\,^\circ$ , Redlands, Victoria Point, litter, 20 m, 27.96666°S, 153.45000°E, 1-31 Dec. 2009, R. Raven (QM S84941, PBI\_OON 23472); 1 ♀, same data except 1 Feb.-4 Mar. 2010, R. Raven (QM S84957, PBI\_OON 23474).

Etymology. The specific name is a patronym in honor of the environmentalist Mr. Bob Douglas who devoted his life to nature projects in the Redlands Shire.

Diagnosis. Males resemble those of *O. durisconwayi* in having a medially attached femur and a slightly bulging bulb which is completely fused, but can be distinguished by strong paired scutal ridges and additional median ridge and the s-shaped prolateral tip without incision (Fig. 88 I). Females can be separated from all other Queensland species by the epigastric area, in dorsal view having a paddle-like sclerite (PSc) with strongly bent arms reaching far beyond epigastric fold (Fig. 89G).

Description. Male (PBI\_OON 23402, Figs 88A-I). Total length 1.24. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace broadly oval in dorsal view, pars cephalica strongly elevated in lateral view, high shouldered with angular posterolateral corners, sides strongly reticulate, lateral margin, rebordered, without denticles. Eyes, ALE: 0.074; PME: 0.065; PLE: 0.055, ALE largest, ALE circular, PME oval, PLE circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Abdomen, book lung covers small; scuto-pedicel region about diameter of pedicel, with strong paired scutal ridges and additional median ridge. Palpal patella 0.260 long, 0.146 wide, connection to femur 0.47; bulb ventrally slightly bulging with s-shaped prolateral tip, 'fenestra' small (Figs 88H, I).

Female (PBI\_OON 23403, Figs 89A-G). Total length 1.31. Eyes, ALE: 0.065; PME: 0.069; PLE: 0.055, PME largest; posterior eye row recurved from above. Epigastric area, ventral view, epigastric fold (EF) slightly bowed, with small median knob; in dorsal view paddle-like sclerite (PSc) with strongly bent arms reaching far beyond epigastric fold (Fig. 89G); nail-like process (Na) triangular; globular appendix (GAp) divided into globular hood and drop-shaped extension.

**Distribution.** This species is known only from the Brisbane, Redlands area in Southern Queensland.

#### Opopaea jonesae Baehr

Opopaea jonesae Baehr, 2011: 419, figs 2, 10, 29–31, 52, 53, 62, 63

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. Opopaea jonesae resembles O. rogerkitchiugi in colour and in having small eyes which are equal in size. Males of O. jonesae and O. rogerkitchingi have a slim bulb and a palpal patella with a median connection to the femur (C/L=0.51). Males of O. jonesae can be easily separated by a longitudinal band of setae at the swollen posterior part of the sternum between coxae IV (Baehr 2011: fig. 62) and the medially bent flagellate distal tip of the bulb. Females can be distinguished from those of O. rogerkitchingi by the narrow, widely triangular chitinized area near the genital opening.

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

Distribution. Only known from the southeast corner of Queensland.

Opopaea lambkinae Baehr, sp. nov. (Figs 90A-J, 91, A-H)

Material examined. Holotype ♂: AUSTRALIA: *Queenslaud*: Carnarvon Station (CN3P1), rocky cliffs, litter, 690 m, 24.83694°S, 147.63194°E, 25 Nov.-14 Dec. 2010, C. Zwick (QM S92334, PBI\_OON 23670. Allotype ♀: collected with holotype (QM S92335, PBI\_OON 23671).

Other material examined. AUSTRALIA: Queensland: 2 Å, Carnarvon Station (CN3P1), litter, 690 m, 24.83694°S, 147.63194°E, 7 Nov. 2010–25 Nov. 2012, Starick, Lambkin, Zwick (QM S92336, PBI\_OON 23672); 1 Å, same data except 25 Nov.–14 Dec. 2010, C. Zwick (QM S92338, PBI\_OON 23673).

Etymology. The specific name is for Dr Christine Lambkin, Curator of Entomology at Queensland Museum, who collected some of the specimens.

Diagnosis. Males resemble those of *O. clirisconwayi* in having weak paired scutal ridges, a medially attached femur and a slightly bulging bulb which is completely fused, but can be distinguished by the bulbal tip being narrow with a small prolateral incision and ventral ridge, 'fenestra' elongate (Fig. 90 I). Females can be distinguished from all other

Queensland species by the epigastric area, in dorsal view having a globular appendix (GAp) with long extension (Fig. 91H).

Description. Male (PBI\_OON 23670, Figs 90A-J). Total length 1.42. Prosoma, mouthparts and abdominal scutae orange brown, legs pale orange. Carapace broadly oval, highshouldered with 2 pairs of strong setae, with angular posterolateral corners, lateral margin rebordered with blunt denticles. Eyes, ALE: 0.083; PME: 0.078; PLE: 0.066, ALE largest, PME squared; posterior eye row recurved from above, straight from front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Abdomen, book lung covers large, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges weak, just touching; postepigastric scutum between apodemes concave with circular protrusion. Palpal patella 0.271 long, 0.142 wide, connection to femur at 0.55; cymbium with slender curved, plumose setae that have a pointed tip; bulb ventrally slightly bulging, tip narrow with small prolateral incision and prolateral ridge, 'fenestra' large, elongate (Fig. 90I, J).

Female (PBI\_OON 23671, Figs 91A-H). Total length 1.45. Eyes, ALE: 0.077; PME: 0.085; PLE: 0.054, PME largest. Epigastric area, ventral view, epigastric fold (EF) slightly bowed, with tiny knob; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) small, triangular; globular appendix (GAp) long extension (Fig. 91G, H).

Distribution. This species is known only from Carnarvon Station in central Queensland.

#### Opopaea leica Baehr

Opopaea leica Baehr, 2011: 422, figs 3, 26-28, 48, 49, 60, 63

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. Opopaea leica resembles O. autoniae and O. olivernashi in colour and the large size of the eyes but males of O. leica can be easily separated by the sternal posterior hump and hair tuft between coxae IV (Baehr 2011: fig.

60) and by the absence of a retrolateral seam separating the bulb from cymbium. Females resemble *O. olivernaslii* but can be distinguished by having their globular appendix (GAp) separated into a small posterior globular and a hoodlike anterior part, with the GAp well separated from the chitinized plate (Ch).

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

Distribution. Only known from the southeast corner of Queensland.

Opopaea leichhardti Baehr, sp. nov. (Figs 92A-J, 93,A-H)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Cudmore National Park, eucalypt forest, litter, 365 m, 22.89388°S, 146.35472°E, 27 Oct. 2010–2 Aug. 20011, C. Lambkin, N. Starick (QM S95133, PBI\_OON 23700). Allotype ♀: collected with holotype (QM S95134, PBI\_OON 23701).

Etymology. The species is named in honor of the German explorer and scientist Ludwig Leichhardt (1813-1848), who came to Australia in 1842 to study its wildlife. This is for his 200th anniversary in 2013.

Diagnosis. Males and females resemble those of *O. ameyi* in having flat body with scuto-pedicel region less than diameter of pedicel and males with two strong prolateral spines at the base of the bulb, but can be distinguished by having well developed paired scutal ridges at scutopedicel region, by having a long triangular ridge between apodemes (Fig. 92C). Females in having the sternum between furrows I-II and II-III not bulging (Fig. 93C).

Description. Male (PBI\_OON 23700, Figs 92A-J). Total length 1.12. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow. Carapace ovoid in dorsal view, slightly elevated in lateral view, with angular posterolateral corners, surface smooth, sides striated, lateral margin rebordered, without denticles. Eyes, ALE: 0.060; PME: 0.057; PLE: 0.053, ALE largest, ALE circular, PME oval, PLE circular; posterior eye row recurved from above, straight from front; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum

longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth. Abdomen, scuto-pedicel region about ½ of pedicel diameter, scutal ridges connected at middle. Palpal patella 0.224 long, 0.139 wide, connection to femur at 0.37; bulb ventrally slightly bulged, with two strong prolateral basal spines, tip broad prolaterally deeply incised, connected to fenestra (Figs 92H, I).

Female (PBI\_OON 23701, Figs 93A-H). Total length 1.47. Eyes, ALE: 0.088; PME: 0.069; PLE: 0.063. Epigastric area, ventral view, epigastric fold (EF) slightly bowed, with tiny knob; in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) small, triangular; globular appendix (GAp) triangular (Fig. 93H).

**Distribution.** This species is known only from the Cudmore National Park in central Queensland.

## Opopaea incleani Baehr, sp. nov. (Figs 94A-J)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Bulimba Creek, Carindale, 27.50150°S, 153.10570°E, 2-29 Jan. 2004, QM Party (QM S67390, PBI\_OON 06828).

Other material examined. AUSTRALIA: Queensland: 1 Å, Buhot Creek, Burbank, riparian forest, 27.58783°S, 153.16980°E, 12 Dec. 2003–1 Jan. 2004, QM Party (QM S65778, PBL\_OON 6857).

Etymology. The specific name is a patronym in honor of Mr. Stacey McLean, Senior Program Officer, Parks and Environmental Planning, Brisbane City Council, who initiated the Brisbane habitat survey through which most of the specimens were collected.

Diagnosis. Males resemble those of *O. clurisconwayi* in having weak paired scutal ridges, a medially attached femur and a prolateral incision at the bulbal tip, but can be distinguished by the dense field of plumose setae at the top of the cymbium and the lack of a spine-shaped extension at the bulbal tip (Fig. 94 I).

Description. *Male* (PBI\_OON 06828, Figs 94A–J). Total length 2.12. Prosoma, mouthparts and abdominal scutae orange brown, legs pale orange. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, sides striated; lateral

margin rebordered, with blunt denticles. Eyes, ALE: 0.095; PME: 0.084; PLE: 0.077, ALE largest, PME squared; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Abdomen, scuto-pedicel region about diameter of pedicel, paired scutal ridges weak, not connected at middle. Palpal patella 0.350 long, 0.222 wide, connection to femur at 0.50; cymbium completely fused with bulb, no seam visible, with distal patch of plumose setae; bulb ventrally strongly bulging, completely fused to cymbium, tip with prolateral incision at the bulbal tip, 'fenestra' small (Fig. 94 I).

Female. Unknown.

Distribution. This species is known only from the Brisbane area in South East Queensland.

#### Opopaea olivernashi Baehr

Opopaea olivernashi Baehr, 2011: 429, figs 4, 20-22, 44, 45, 61, 63

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. *Opopaea olivernashi* resembles *O. antoniae* in colour and eye size. Males of *O. olivernashi* and *O. antoniae* are the only Lamington species with a retrolateral seam between the bulb and cymbium. Males of *O. olivernashi* can be easily separated by their broad patella, the more subbasal connection to the femur (C/L = 0.37), the sternum with an anterior fold just behind labium, about <sup>3</sup>/<sub>4</sub> of the length of the labium (Baehr 2011: fig. 61), and the more swollen bulb. Females can be distinguished from all other Opopaea species by the globular appendix divided into a hood and a v-shaped extension (Baehr 2011: fig. 45).

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

Distribution. Only known from the southeast corner of Queensland.

## Opopaea proserpine Baehr, sp. nov. (Figs 95A-J)

Material examined. Holotype ♂: AUSTRALIA: *Queensland:* Proserpine, Airport Drive (site XY12), forest, bark, 32m, 20.48777°S, 148.56500°E, 6 Nov. 2007, R. Raven (QM S92329, PBI\_OON 23664).

Other material examined. AUSTRALIA: *Queensland*: 4 &, Proserpine, Airport Drive (site XY12), forest, bark, 32 m, 20.48777°S, 148.56500°E, 6 Nov. 2007, R. Raven (QM S86794, PBI\_OON 23665); 1 &, Proserpine, XY, 20.48333°S, 148.55000°E, 1 Jan. 2007, R. Raven (QM S85724, PBI\_OON 23120); 1 &, same data (QM S85999, PBI\_OON 23199).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. broadwater* in general body shape, having a scuto-pedicel region with paired scutal ridges, additional median ridge and a medial attachment of the femur but can be easily recognised by the broad tip with huge striated prolateral fold and the large more distally situated 'fenestra' (Figs 95H, I).

Description. Male (PBI\_OON 23230 Figs 95A-J). Total length 1.43. Prosoma, mouthparts and abdominal scutae yellow-brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, sides striated; lateral margin rebordered without denticles; pars thoracica with 3 setae on each side. Eyes, ALE: 0.065, PME: 0.071, PLE: 0.056, PME largest, PME squared; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Abdomen, scuto-pedicel region less than diameter of pedicel, with additional median scutal ridge, paired scutal ridges weak, just touching. Palpal patella 0.280 long, 0.136 wide, connection to femur at 0.47; bulb ventrally slightly bulging, tip broad with huge striated prolateral fold, 'fenestra' large, situated distally.

Female. Unknown.

**Distribution**. This species is known only from the Proserpine area of coastal Queensland.

#### Opopaea rogerkitchingi Baehr

Opopaea rogerkitchingi Baehr, 2011: 430, figs 5, 35–37, 54, 55, 63.

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. Opopaea rogerkitchingi resembles O. jonesae in colour and both species have small eyes that are equal in size. Males of O. rogerkitchingi and O. jonesae also share a slim bulb, and a palpal patella with a median connection to the femur (C/L=0.52). Males of O. rogerkitchingi can be easily separated by the centrally directed sternal setae between coxae IV and the distal part of bulb which has a medially bent, sharp tip (Baehr 2011: fig. 36). Females of O. rogerkitchingi can be distinguished from those of O. jonesae by the broad chitinized area near the genital opening.

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

Distribution. Only known from the southeastern corner of Queensland.

#### Opopaea speighti Baehr

Opopaea speighti Baehr, 2011: 433, figs 7, 41-43, 58, 59, 63.

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. Opopaea speighti resembles O. leica in having a completely fused bulb and cymbium, and a triangular, medially bent distal part of the bulb (Baehr 2011: fig. 42). Males of O. speighti can be easily separated by their flat sternum which lacks any posterior swelling between coxae IV. Females of O. speighti can be distinguished from those of all other Opopaea species by the genitalia which have a narrow, triangular, posteriorly directed extension of the chitinized area in ventral view (Baehr 2011: fig. 58) and the globular appendix divided into a widely triangular, hood-shaped anterior part and a small, globular posterior extension that is not embedded in the chitinized area (Baehr 2011: fig. 59).

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

**Distribution.** Only known from the southeast corner of Queensland.

Opopaea stanisici Baehr, sp. nov. (Figs 96A-J, 97A-G)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Redlands, scribbly gum open forest, litter, 249 m, 27.90000°S, 153.40000°E, 19 Jan.–19 Feb. 2009, R.J. Raven (QM S86904, PBI\_OON 23405). Allotype ♀: collected with holotype (QM S79357, PBI\_OON 23411).

Other material examined. AUSTRALIA: Queensland: 1 &, Mt Cotton, Sandy Creek Cons Area, litter, 40 m, 27.98333°S, 153.40000°E, 1 Feb.-4 Mar. 2010, R.J. Raven (QM S88213, PBI\_OON 23437); 4 &, data except 1-21 Dec. 2009, R. Raven (QM S88227, PBI\_OON 23461); 1 &, Redlands, scribbly gum open forest, litter, 249 m, 27.90000°S, 153.40000°E, 19 Jan.-19 Feb. 2009, R.J. Raven (QM S86904, PBI\_OON 23406); 9  $\Diamond$ , 2  $\Diamond$ , same data (QM S79357, PBI\_OON 23412); 1 d, same data (QM S79353, PBI\_OON 23413); 1 d, same data (QM \$87160, PBI\_OON 23414); 9 d, 1 9, same data (QM S79381, PBI\_OON 23415); 3 8, 2 9, same data (QM S79326, PBI\_OON 23418); 1 8, Redlands, Eastern Escarpment Conservation Area, litter, 120 m, 27.98333°S, 153.35000°E, 8-11 Feb. 2010, C. Burwell, A. Nakamura (QM S88297, PBI\_OON 23440); 2 Å, same data except 1–31 Jan. 2010, R. Raven (QM S84992, PBI\_OON 23453); 2 Å, 1 Feb.-4 Mar. 2010, R. Raven (QM S88167, PBI\_OON 23467); 1 ♀, 14 Feb. 2010, A. Nakamura (QM S88353, PBI OON 23476).

Etymology. The specific name is for Dr John Stanisic, land snail researcher and Principal Biodiversity Scientist ('The Snail Whisperer'), BAAM (Biodiversity Assessment and Management) who conducted this survey.

Diagnosis. Males resemble those of *O. mcleani* in having weak paired scutal ridges, a medially attached femur and a prolateral incision at the bulbal tip, but can be distinguished by the sternum with posterior ridge (Fig. 96B) and the long medially bent, spatulate bulbal tip (Fig. 96 I). Females have the epigastric fold (EF) with a triangular median part and small posterior triangular concavity (Fig. 97F, G).

Description. *Male* (PBI\_OON 23405, Figs 96A-J). Total length 1.33. Prosoma, mouthparts and abdominal scutae orange brown, legs pale

orange. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, sides striated; lateral margin rebordered without denticles. Eyes, ALE: 0.060; PME: 0.062; PLE: 0.055, PME largest, PME circular; posterior eye row straight from both above and front; ALE separated by less than their radius, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum: longer than wide, with posterior ridge. Abdomen, scuto-pedicel region about diameter of pedicel, paired scutal ridges weak, not connected at middle. Palpal patella 0.296 long, 0.158 wide, connection to femur at 0.50; bulb ventrally slightly bulging, completely fused to cymbium, with long spatulate, medially bent tip, connected with 'fenestra' by a fold (Fig. 96 l).

Female (PBI\_OON 23411, Figs 97A-G). Total length 1.52. Eyes, ALE: 0.063; PME: 0.053; PLE: 0.045. Epigastric area, ventral view, epigastric fold (EF) with triangular median part and small posterior triangular concavity (Fig. 97F, G).

Distribution. This species is known only from the Brisbane Redlands area in South East Queensland.

# Opopaea ulrichi Baehr, sp. nov. (Figs 1, 98A–J, 99A–G)

Material examined. Holotype ♂: AUSTRALIA: *Queensland*: Mt Glorious, rainforest, in litter, 690 m, 27.33333°S, 152.76670°E, 15 Mar. 2008, U. Baehr (QM S92339, PBI\_OON 23697). Allotype ♀: collected with holotype (QM S92340, PBI\_OON 23698).

Other material examined. AUSTRALIA: *Queensland*: 1 Å, Mt Glorious, rainforest, leaf litter, 690 m, 27.33333°S, 152.76670°E, 20 Sept. 1979, G. Monteith (QM S12866, PBI\_OON 21541); 3 ♀, Mt Glorious, rainforest, in litter, 690 m, 27.33333°S, 152.76670°E, 15 Mar. 2008, U. Baehr (QM S84079, PBI\_OON 22896); 1 Å, 1 ♀, Mt Tenison Woods, 620 m, 27.32333°S, 152.72170°E, 15 May 1997, G. Monteith (QM S43085, PBI\_OON 6709).

**Etymology.** The specific name is for Ulrich Baehr, son of the senior author, who collected the types.

**Diagnosis.** Males and females resemble those of *O. carteri* in having a high shouldered carapace and high abdomen but in *O. ulrichi* the scutopedicel region is more than diameter of pedicel.

Males of both species have a more subbasally attached femur and a strongly bulging bulb which is separated from cymbium basally by a seam, but can be distinguished by the absence of 2 strong prolateral basal spines (Fig. 98G) and the postepigastric scutum has no conical protrusion between the anterior and posterior spiracles. In females the epigastric area in ventral view has epigastric fold (EF) strongly triangular, triangle wide, reaching more than ½ of concavity (Figs 99F, G).

Description. Male (PBI\_OON 23697, Figs 1, 98A-J). Total length 1.71. Prosoma, mouthparts and abdominal scutae orange brown, legs yellow-brown. Carapace broadly oval, high shouldered, with angular posterolateral corners, sides striated; lateral margin rebordered without denticles. Eyes very large, ALE: 0.094; PME: 0.085; PLE: 0.076, ALE largest, PME oval; posterior eye row straight from above, procurved from front; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME. Abdomen, scuto-pedicel region more than diameter of pedicel, with strong paired scutal ridges and additional median ridge, plumose setae lateral of pedicel. Palpal patella 0.202 long, 0.142 wide, connection to femur at 0.30; bulb ventrally strongly bulging with basal seam between cymbium and bulb, tip broad, prolaterally incised, with huge prolateral fold connecting 'fenestra' with large spatulate, medially bent tip (Figs 98G, H).

Female (PBI\_OON 23698, Figs 99A-G). Total length 1.94. Eyes, ALE: 0.087; PME: 0.078; PLE: 0.057. Epigastric area, ventral view, epigastric fold (EF) widely triangular, with triangular median part; in dorsal view paddle-like sclerite (PSc) with short, straight arms bent at the end; nail-like process (Na) triangular; globular appendix (GAp) long, funnel-shaped (Fig. 99G).

Distribution. This species is known only from the Mt Glorious area in south-eastern Queensland.

#### Opopaea yukii Baehr

Opopaea yukii Baehr, 2011: 434, figs 8, 9, 38-40, 56, 57, 63.

Material examined. See Baehr (2011).

Other material examined. See Baehr (2011).

Diagnosis. Males and females of *O. yukii* can be easily separated from all other *Opopaea* species from Lamington National Park by their flat bodies and long oval abdomens (Baehr 2011: figs 8, 9). The male sternum has no posterior swelling between coxae IV and the distal end of the palpal bulb is long, medially bent and scoop-shaped. Females can be distinguished from those of all other *Opopaea* species by having the chitinized area a narrow band with a small sinuous posterior extension (Baehr 2011: Fig. 56) in ventral view and the globular appendix not divided but small, globular and embedded in the chitinized area (Baehr 2011: fig. 57).

Description. Male: See Baehr (2011).

Female. See Baehr (2011).

Distribution. Only known from the southeast corner of Queensland.

#### SPECIES FROM SOUTH AUSTRALIA Key to species

*stevensi*)......5

- 2. Scuto-pedicel region about ¾ diameter of pedicel or more (Fig. 104G) . . . . . . . . . . 3
- Scuto-pedicel region about ½ diameter of pedicel (Fig. 102G).....O. millbrook

- 4. PME largest, bulbal tip broad, retrolateral part evenly rounded (Fig. 105 I) . . . . O. stevensi
- ALE largest, bulbal tip narrow, retrolateral part s-shaped (Fig. 100 I) . . . . O. banksi
- 5. Eyes small, scuto-pedicel region about ½ diameter of pedicel (Fig. 103E) . . . O. millbrook

Eyes big, scuto-pedicel region about <sup>3</sup>/<sub>4</sub> diameter of pedicel (Fig. 101F) . . O. banksi

#### Opopaea banksi (Hickman, 1950) (Figs 100A-J, 101A-H)

Gamasomorpha banksi Hickman, 1950: 13, figs 12-14.

Material examined. Holotype ♂: AUSTRALIA: South Australia: Reevesby Island 34.55305°S, 136.26694°E, 1 Dec. 1936, J. Clark (MVMA K110, PBI\_OON 23677). Allotype ♀: collected with holotype (MVMA K111, PBI\_OON 23678).

Diagnosis. Males resemble those of *O. stevensi* in having a scuto-pedicel region about <sup>3</sup>/<sub>4</sub> diameter of pedicel, paired scutal ridges not medially connected, a strongly bulging bulb, tip short medially bent, with a prolateral incision but can be distinguished by the narrow bulbal tip, with s-shaped retolateral part (Fig. 100 l). Females can be separated from *O. millbrook*, the only other known female from SA by the higher opisthosoma with scuto-pedicel region about <sup>3</sup>/<sub>4</sub> diameter of pedicel (Fig. 101F).

Description. Male (PBI\_OON 23677, Figs 100A-J). Total length 1.44. Prosoma, mouthparts, abdominal scutae orange brown and legs pale orange. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, top smooth, sides striated, lateral margin rebordered, with blunt denticles. Eves, ALE: 0.082; PME: 0.077; PLE: 0.066, ALE largest, ALE circular, PME oval, PLE circular; posterior eye row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Abdomen, book lung covers large, ovoid, with longitudinal ridge; scuto-pedicel region about 3/4 diameter of pedicel, paired scutal ridges not medially connected. Palpal patella 0.292 long, 0.165 wide, connection to femur at 0.48; bulb ventrally strongly bulging, tip narrow with tiny acute beak-shaped ending and tiny prolateral incision and small 'fenestra'.

Female (PBI\_OON 23678, Fig. 101A–H). Total length 1.60. Eyes, ALE: 0.076; PME: 0.057; PLE: 0.056. Female palpal tarsus thickened. Epigastric area, ventral view, epigastric fold (EF) widely bowed with narrow triangular extension medially;

in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end; nail-like process (Na) tiny conical; globular appendix (GAp) mushroom-shaped Fig. 101H).

Distribution. This species is known only from Reevesby Island in the southern part of South Australia. Although originally described in the genus *Gamasomorpha*, Brignoli (1975) correctly transferred this species to *Opopaea*.

### Opopaea millbrook Baehr, sp. nov. (Figs 102A-J, 103A-G)

Material examined. Holotype ♂: AUSTRALIA: South Australia: Millbrook Reservoir, 34.81666°S, 138.80000°E, 22 Feb.–27 Mar. 2002, D. Hirst (SAMA NN23304, PBI\_OON 22884). Allotype ♀: collected with holotype (SAMA NN23306, PBI\_OON 23667).

Other material examined. AUSTRALIA: South Australia: 1 &, Millbrook Reservoir, 34.81666°S, 138.80000°E, 22 Feb.–27 Mar. 2002, D. Hirst (SAMA NN23305, PBI\_OON 23666).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. mundy* in having paired scutal ridges not medially connected, a strongly bulging bulb, tip short, medially bent and with a prolateral incision but can be distinguished by having a scuto-pedicel region about ½ diameter of pedicel, a larger incision and the tip with rectangular striated prolateral fold (Fig. 102 l). Females have the epigastric fold (EF) slightly bowed with long median triangular extension (Fig. 103G).

Description. Male (PBI\_OON 22884, Figs 102A–J). Total length 1.23. Prosoma, mouthparts, abdominal scutae orange brown and legs pale orange. Carapace slightly elevated in lateral view, with angular posterolateral corners; lateral margin rebordered with blunt denticles. Eyes, ALE: 0.047; PME: 0.049; PLE: 0.043, PME largest, ALE circular, PME squared; posterior eye row straight from above; ALE separated by less than their radius, PME touching throughout most of their length, PLE-PME touching. Abdomen, scuto-pedicel region 1/2 diameter of pedicel, paired scutal ridges weak, just touching; postepigastric scutum between lateral apodemes concave with wide,

weak triangular extension. Palpal patella 0.228 long, 0.135 wide, connection to femur at 0.48; bulb ventrally slightly bulging, tip broad with rectangular striated prolateral fold, 'fenestra' small (Figs 102H, I).

Female (PBI\_OON 23667, Figs 103A-G). Total length 1.36. Eyes, ALE: 0.051; PME: 0.035; PLE: 0.033. Epigastric area, ventral view, epigastric fold (EF) slightly bowed with long median triangular extension; in dorsal view paddle-like sclerite (PSc) with straight arms; nail-like process (Na) narrow conical; globular appendix (GAp) divided into small hood and long extension (Fig. 103G).

Distribution. This species is known only from the type locality in the Adelaide Hills of South Australia.

#### Opopaea muudy Baehr, sp. nov. (Figs 104A-J)

Material examined. Holotype 3: AUSTRALIA: South Australia: Mundy Dam, open shrubland, litter, 26.67333°S, 133.01666°E, 12–16 Aug. 1998 (SAMA NN10580, PBI\_OON 22883).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. banksi* in having a scuto-pedicel region about ¾ diameter of pedicel and a strongly bulging bulb with a prolaterally incised, short medially bent bulbal tip but can be distinguished by the narrow spatulate tip with deep prolateral incision (Fig. 104 I).

Description. Male (PBI\_OON 22883, Figs 104A-J). Total length 1.48. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow. Carapace slightly elevated in lateral view, with angular posterolateral corners; lateral margin rebordered with blunt denticles. Eyes, ALE: 0.050; PME: 0.056; PLE: 0.040, PME largest, ALE circular, PME oval; posterior eye row straight from above; ALE separated by more than their diameter, PME touching for less than half their length, PLE-PME separated by less than PME radius. Abdomen, scuto-pedicel region less than diameter of pedicel, paired scutal ridges weak. Palpal patella 0.268 long, 0.148 wide,

connection to femur at 0.52; bulb ventrally strongly bulging, tip narrow with prolateral incision, 'fenestra' small, retrolaterally situated, margin with kerb (Fig. 104 I).

Female. Unknown.

Distribution. This species is known only from the type locality in central part of South Australia.

#### Opopaea stevensi Baehr, sp. nov. (Figs 105A-J)

Material examined. Holotype ♂: AUSTRALIA: South Australia: Hiltaba Station, Casuarina woodland, litter, 32.19444°S, 135.10388°E, 12–22 Nov. 2012, B. Baehr (SAMA NN28001, PBI\_OON 23699).

Etymology. The specific name is in honor of Mark Stevens from the South Australian Museum who organised the BushBlitz trip for the South Australian Museum.

Diagnosis. Males resemble those of *O. banksi* in having a scuto-pedicel region about ¾ diameter of pedicel and a strongly bulging bulb with a prolaterally incised, short medially bent bulbal tip but can be distinguished by the narrow acute beak-shaped tip with tiny prolateral incision, with evenly rounded retrolateral part (Fig. 105 I).

Description. Male (PBI\_OON 23699, Figs 105A-I). Total length 1.42. Prosoma, mouthparts. palpal patella and abdominal scutae orange brown, legs yellow. Carapace ovoid in dorsal view, pars cephalica slightly elevated, with angular posterolateral corners, surface smooth, sides finely reticulate, lateral margin undulate, rebordered, with blunt denticles. Eyes, ALE: 0.064; PME: 0.076; PLE: 0.062, PME largest, ALE circular, PME oval, PLE circular; posterior eve row straight from both above and front; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Abdomen, scuto-pedicel region about diameter of pedicel, paired scutal ridges medially connected. Palpal patella 0.224 long, 0.139 wide, connection to femur at 0.37; bulb strongly bulging ventrally, with narrow acute beak-shaped tip with tiny prolateral incision, 'fenestra' small, retrolateral part of tip evenly rounded (Fig. 105 I).

Female. Unknown.	10. Bulb elongated, tip with semicircular ridge
Distribution. This species is known only from	(Fig. 121H)
the type locality in central South Australia.	<ul> <li>Bulb compact, tip with s-shaped ridge (Fig. 132H)</li></ul>
SPECIES FROM WESTERN AUSTRALIA	
Key to species	11. Concavity between lateral apodemes (as Fig. 134G)
	<ul> <li>Long elevated ridge or triangle between</li> </ul>
1. Males (unknown for O. plineus) 2	lateral apodemes (Fig. 125C, 130C) 14
- Females (unknown for O. aculeata, O.billroth, O. callani, O. cowra, O. durranti, O. ectognophus,	12. Palpal tip with wide incision (Fig. 134 I)
O. exoculata, O. flava, O. fragilis, O. gracilis,	O. pannawonica
O. julianneae, O. subtilis, O. whim) 30	<ul> <li>Palpal tip with slit-like incision (as Fig. 136 I)</li> </ul>
2. Scuto-pedicel region high, about 1 ½	13
diameter of pedicel (Fig. 140G). O. robusta	13. Eyes small, palpal patella connection to
- Scuto-pedicel region lower3	femur 0.53 (Fig. 136J) O. pilbara
3. Scuto-pedicel region about 1 1/3 of	- Eyes large, palpal patella connection to femur 0.61 (Fig. 147J) O. wheelarra
diameter of pedicel (as Fig. 142G) 4	
Scuto-pedicel region lower	14. With long elevated ridge between lateral apodemes (Fig. 125C) O. julianneae
4. Paired scutal ridges strong, medially	- With elevated triangle between lateral
connected (as Fig. 109G)	apodemes (as Fig. 130C)15
- Paired scutal ridges medially not connected (Fig. 142G)	15. Abdomen broadly oval, wider triangle
	(Fig. 130C)
5. Palp with narrow prolaterally incised tip (Fig. 107 I)	- Abdomen elongated, narrow, well defined
<ul> <li>Palp with broad rectangular deeply incised</li> </ul>	triangle (Fig. 145C) O. triangularis
tip (Figs 109H, I)	16. Scuto-pedicel region about ¾ of diameter
6. Scuto-pedicel region about diameter of	of pedicel (as Fig. 110G)
pedicel (as Fig. 116G)	<ul> <li>Scuto-pedicel region about ½ of diameter of pedicel (as Fig. 112G)</li></ul>
- Scuto-pedicel region <sup>3</sup> / <sub>4</sub> of diameter or lower	
(as Fig. 111F)16	17. Concavity between apodemes (Fig. 110C), carapace sides striated, top smooth 18
7. Palpal cymbium basally separated by seam	<ul> <li>Without concavity, carapace finely</li> </ul>
(as Figs 116H, J)	reticulated (as Figs 111D, E)19
- Palpal cymbium completely fused (as Fig. 134H)9	18. Tip narrow, retrolaterally bulging at height
	of 'fenestra' (Fig. 110 I) O callani
8. Palpal patella connection to femur at 0.36 (Fig. 116J)	<ul> <li>Tip shorter not retrolaterally bulging (Fig.</li> </ul>
<ul> <li>Palpal patella connection to femur at 0.52</li> </ul>	138 I) O. rixi
(Fig. 126J)	19. Bulb with long strong medially directed
9. Paired scutal ridges weak, not connected	prolateral extension (Fig. 111H)O. cowra
(as Fig. 121G)	- Bulb extension small or absent (Figs 1231, 1281, 149 l)
- Paired scutal ridges strong, connected by	
arc (as Fig. 134G)	20. Bulb with triangular extension close to

	palpal tip (Fig. 123 I)		diameter of pedicel (Fig. 141E) O. robusta
_	Bulb without triangular extension close to palpal tip (Figs 128I, 149 I)21	_	o de la companya de l
	With prolateral fold at the middle of the bulb (Fig. 128 I) O. millstream Without prolateral fold at the middle of the	32. —	Scuto-pedicel region about 1-1/3 of diamete of pedicel (as Fig. 108E)
	bulb (Fig. 149 I)	33.	Epigastric area, ventral view, with median
22.	Distance between coxae equal (as Fig. 119B)23	٠	concavity reaching lateral apodemes (Fig 108F, G)
-	Coxae distance II/III greater than coxae I/II, III/IV (as Fig. 115B)		Epigastric area, ventral view, with shor concavity not reaching lateral apodemes (Figs 143F, G) O. rugosa
	Bulbal tip pointed, ventrally incised (Fig. 112H)	34.	Scuto-pedicel region about diameter o pedicel (as Fig. 127F)35
	Bulbal tip spatulate, ventrally not incised (Fig. 119H) O. gracillima	-	<ul> <li>Scuto-pedicel region <sup>3</sup>/<sub>4</sub> of diameter of lower (as Figs 139F, 120E)</li></ul>
24.	Bulb with 2 strong prolateral spines (as Fig. 118H)	35.	Paired scutal ridges weak not connected (a: Fig. 127F)
_	Bulb without 2 strong prolateral spines (as Fig. 114H)	-	Paired scutal ridges connected by arc (a: Fig. 148E)
25.	Bulbal tip narrow connected with narrow 'fenestra' by fold (Figs 106H, I). O. aculeata	36.	T-shaped sclerite (PSc) with slightly bowed arms, not reaching epigastric fold (Fig. 127H
-	Bulbal tip short, 'fenestra' not connected by fold (Figs 118H, I) O. gracilis		T-shaped sclerite (PSc) with strongly bowed
	Eyes normal size (as Figs 114A, D)27		arms, reaching epigastric fold (Fig. 122G
_	Eyes strongly reduced or absent (as Figs 113A, 144A)	37.	Epigastric fold with anterior margin
27.	Postepigastric scutum with a longitudinal		straight (Fig. 122F)
	ridge, bulbal tip, prolateral excavation absent (Figs 114C, I)	_	Epigastric fold with anterior margin bowed (Fig. 146F)39
	Ridge absent, bulbal tip with deep prolateral excavation (Figs 115C, I)O. fragilis	38.	Epigynal fold with posterior margin straigh with small median knob (Fig. 122F
	Eyes strongly reduced (Fig. 144A)O. subtilis		
	Eyes absent (as Fig. 113A)		Epigynal fold with posterior margin widely triangular medially narrowed (Figs 117F, G
29.	& Edward, 2007: fig. 2) O. ectognophus		O. framenaui
-	Scutae covering whole abdomen (Fig. 113C)	39.	Species from t-shaped sclerite just reaching epigastric fold (Fig. 133G) O. pallida
30.	Eyes present (Fig. 141A, D)	-	Arms of t-shaped sclerite (PSc) reaching beyond epigastric fold (Fig. 146G)O
	Eyes absent (Harvey & Edward, 2007: fig. 7)	40	triangularis ,  Enjayral fold with antoniar margin clightly
31.	Scuto-pedicel region high, about 1 ½ of	40.	Epigynal fold with anterior margin slightly bowed, with median triangle (Fig. 135F)41

- Epigynal fold with anterior margin straight, with small median knob (Fig. 137F) . . . . . 42
- 41. Arms of t-shaped sclerite (PSc) arms not reaching epigastric fold (Fig. 135G) . . . . O . pannawonica
- 42. Epigynal fold with posterior margin with two large chitinized edges (Fig. 137G) . . O. pilbara
- 43. Scuto-pedicel region about ¾ of diameter of pedicel (Fig. 139F)......44
- Scuto-pedicel region about ½ of diameter of pedicel (Fig. 120E)...... O. gracillima
- Carapace finely reticulated (as Fig. 129D). 45
- 45. Epigynal fold posterior margin with narrow median triangle (Fig. 129F) . . O. millstream
- Epigynal fold posterior margin with small median knob (Fig. 124F).....O. johannae

## Opopaea aculeata Baehr & Harvey, sp. nov. (Figs 106A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 20 km WNW of Rhodes Ridge, 23.05361°S, 119.17666°E, 1 Sept. 2003–16 Oct. 2004, CALM Pilbara Survey (WAM T82064, PBI\_OON 04031).

**Etymology.** The specific name *aculeata* is a Latin adjective (feminine) meaning having a spine and refers to the prolateral palpal process of the species.

Diagnosis. Males resemble those of *O. gracilis* in general body shape, having reduced eyes, scuto-pedicel area less than 1/2 diameter of pedicel, paired scutal ridges absent and sternum distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV, but can be distinguished by the two strong prolateral bulbal spines and the narrow tip connected with long narrow 'fenestra' through fold (Fig. 106 I).

Description. Male (PBI\_OON 04031, 106A-J). Total length 1.09. Prosoma, mouthparts and abdominal scutae yellow, legs white, palps orange brown. Carapace elongate oval, flat with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, without denticles. Eyes reduced, ALE: 0.028; PME: 0.042; PLE: 0.029, PME largest, ALE circular, PME oval; posterior eye row recurved from above; ALE separated by more than their diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum about twice as long as wide, without radial furrows between coxae I-II, II-III, III-IV, surface smooth, distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV. Abdomen cylindrical; book lung covers large, ovoid; pedicel unmodified, scutopedicel area less than 1/2 diameter of pedicel, paired scutal ridges absent; dorsal scutum, epigastric scutum and postepigastric scutum weakly sclerotized; postepigastric scutum long, semicircular, without posteriorly directed lateral apodemes; epigastric region with sperm pore large, circular, unmodified. Palpal patella 0.233 long, 0.115 wide, connection to femur at 0.50; bulb ventrally slightly bulging, with 2 prolateral spines, tip thin, connected with long narrow 'fenestra' through fold.

Female, Unknown,

Distribution. This species is known only from the type locality in Western Australia.

Opopaea aurantiaca Baehr & Harvey, sp. nov. (Figs 107A-J, 108A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 12 km NE of Mile Camp, 22.70722°S, 119.70916°E, 10 Aug. 2003–21 Oct. 2004, CALM Pilbara Survey (WAM T81866, PBI\_OON 04521). Allotype ♀: collected with holotype (WAM T121116, PBI\_OON 19437).

Other material examined. AUSTRALIA: Western Australia:  $4 \ \bigcirc$ , Bonney Downs Homestead, 22.09472°S, 119.75333°E, 7 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T73369, PBI\_OON 4522);  $2 \ \bigcirc$ ,  $1 \ \bigcirc$ , 6 km N of Cowra Line Canip, 22.30166°S, 119.01333°E, 14 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T81867, PBI\_OON 4528);  $1 \ \bigcirc$ , 7 km SE of Marda Pool, 21.06972°S, 116.20666°E, 25 Sept. 2003–

3 Oct. 2004, CALM Pilbara Survey (WAM T81868, PBI\_OON 4532); 1 ♂, 1 ♀, 58 km ESE Meentheena Outcamp, 21.32194°S, 121.00222°E, 30 July 2003–12 Oct. 2004, CALM Pilbara Survey (WAM T81880, PBI\_OON 4442); 3 ♂, 11 ♀, 12 km NE of Mile Camp, 22.70722°S, 119.70916°E, 10 Aug. 2003–21 Oct. 2004, CALM Pilbara Survey (WAM T121117, PBI\_OON 20369); 1 ♂, 3 ♀, 24 km NNE of Nullagine, 21.67722°S, 120.15527°E, 4 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T81881, PBI\_OON 4449); 1 ♂, 1 ♀, 56 km N of Nullagine, 21.67833°S, 120.08833°E, 19 May 2004–18 May 2005, CALM Pilbara Survey (WAM T81882, PBI\_OON 4450); 1 ♂, 1 ♀, 56 km N of Nullagine, 21.67833°S, 120.08833°E, 2 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T81883, PBI\_OON 4451).

Etymology. The specific name *aurantiaca* is a Latin adjective (feminine) meaning orange-colored in reference to the orange color of the species.

Diagnosis. Males resemble those of *O. billrotli* in general body shape, having scuto-pedicel area higher than diameter of pedicel, with strong medially connected paired scutal ridges and plumose setae lateral of pedicel, but can be distinguished by the narrow polaterally incised palpal tip and small 'fenestra' (Fig. 107 I). Females resemble those of *O. rugosa* in having scuto-pedicel area higher than diameter of pedicel, but can easily separated by epigastric area, ventral view, epigastric fold (EF) with median concavity reaching lateral apodemes (Fig. 108F).

Description. Male (PBI\_OON 04521, Figs 107A-J). Total length 1.86. Prosoma, mouthparts, abdominal scutae yellow and legs orange. Carapace broadly oval, pars cephalica strongly elevated in lateral view, with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides finely reticulate; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.088; PME: 0.084; PLE: 0.088, ALE = PLE, ALE circular, PME squared; posterior eye row recurved from above; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME touching. Abdomen, book lung covers large, ovoid; scutopedicel region higher than diameter of pedicel, with strong medially connected paired scutal ridges and plumose setae lateral of pedicel, paired ridges with 6-7 small teeth; epigastric

scutum between sperm pore and posterior spiracles a field of deep impressions. Palpal patella 0.366 long, 0.190 wide, connection to femur at 0.58; bulb ventrally slightly bulging, tip narrow, prolaterally incised, with striated prolateral ridge and small 'fenestra' (Figs 107H, I).

Female (PBI\_OON 19437, Figs 108A-G). Total length 2.05. Eyes, ALE: 0.082; PME: 0.089; PLE: 0.064. Epigastric area, ventral view, epigastric fold (EF) widely bowed, with small knob and median concavity reaching lateral apodemes; in dorsal view paddle-like sclerite (PSc) with long continously bent arms (Fig. 108G); nail-like process (Na) short; globular appendix (GAp) ending as triangle posteriorly.

**Distribution.** This species is known only from the Pilbara in Western Australia.

Opopaea billroth Baehr & Harvey, sp. nov. (Figs 109A-J

Material examined. Holotype &: AUSTRALIA: Western Australia: 12 km ESE of Mt Billroth, 21.66250°S, 117.70472°E, 5 May 2004–18 May 2005, CALM Pilbara Survey (WAM T817331, PBI\_OON 04378).

Other material examined. AUSTRALIA: Western Australia: 1 3, 5 km WSW of Python Pool, 21.34111°S, 117.18833°E, 8 May 2003–12 May 2005, CALM Pilbara Survey (WAM T121120, PBI\_OON 48260).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. aurantiaca* in general body shape, having scuto-pedicel area larger than diameter of pedicel, with strong medially connected paired scutal ridges and plumose setae lateral of pedicel, but can be distinguished by the smaller eyes, the broad rectangular deeply incised palpal tip with two additional v-shaped folds (Figs 109H, I).

Description. Male (PBI\_OON 04378, Figs 109A-J). Total length 1.87. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace broadly oval in dorsal view, pars cephalica slightly elevated in lateral view, with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides granulate; lateral margin

straight, rebordered, with blunt denticles. Eyes, ALE: 0.064; PME: 0.058; PLE: 0.048, ALE largest, ALE circular, PME circular; posterior eye row recurved from above; ALE separated by more than their diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum furrows barely visible. Abdomen globular; scuto-pedicel area larger than diameter of pedicel, with strong medially connected paired scutal ridges and plumose setae lateral to pedicel. Palpal patella 0.367 long, 0.185 wide, connection to femur at 0.58, bulb ventrally slightly bulging with broad rectangular deeply incised palpal tip and two additional v-shaped folds (Figs 109H, I).

Female. Unknown.

**Distribution.** This species is known only from the Pilbara in Western Australia.

# Opopaea callani Baehr & Harvey, sp. nov. (Figs 110A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Barrow Island, 20.78666°S, 115.45472°E, 1 May 2007, S. Callan, K. Edward (WAM T89193, PBI\_OON 23623).

**Etymology.** This species is named for Shae Callan, collector of the type specimens.

Diagnosis. Males resemble those of *O. rixi* in general body shape, having scuto-pedicel area less than diameter of pedicel, paired scutal ridges not connected at middle and postepigastric scutum with concavity between lateral apodemes, but can be distinguished by the long and narrow bulbal tip, retrolaterally bulging at height of narrow 'fenestra' (Fig. 110 I).

Description. *Male* (PBI\_OON 23623, Figs 110A-J). Total length 1.50. Prosoma, mouthparts, palpal patella and abdominal scutae pale orange, legs yellow. Carapace ovoid with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.072; PME: 0.063; PLE: 0.063, ALE largest, ALE circular, PME squared; posterior eye row straight from above; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching throughout

most of their length, PLE-PME separated by less than PME radius. Abdomen, book lung covers large, ovoid; scuto-pedicel region less than diameter of pedicel; paired curved scutal ridges nearly straight, not connected at middle; postepigastric scutum with weak longitudinal ridge between apodemes. Palpal patella 0.287 long, 0.148 wide, connection to femur at 0.54; bulb ventrally slightly bulging, with long and narrow tip, retrolaterally bulging at height of narrow 'fenestra' (Fig. 110 l).

Female. Unknown.

Distribution. This species is known only from Barrow Island in Western Australia.

# Opopaea cowra Baehr & Harvey, sp. nov. (Figs 111A-I)

Material examined. Holotype &: AUSTRALIA: Western Australia: 6 km N of Cowra Line Camp, 22.30166°S, 119.01333°E, 14 Aug.-18 Oct. 2004, CALM Pilbara Survey (WAM T82015, PBI\_OON 04688).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. johannae* in general body shape, having a finely reticulated carapace, scuto-pedicel region less than diameter of pedicel, paired scutal ridges short, not connected, patella connection to femur at anterior half and the broad complex folded bulbal tip but can be distinguished by the strong medially directed prolateral extension at the middle of the bulb (Fig. 111H).

Description. *Male* (PBI\_OON 04688, Figs 111A-I). Total length 1.41. Prosoma, mouthparts and abdominal scutae pale orange, palpal patella orange brown, legs yellow. Carapace with angular posterolateral corners, finely reticulate; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.071; PME: 0.066; PLE: 0.053, ALE largest, ALE circular, PME oval; posterior eye row straight from above; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Abdomen ovoid, rounded posteriorly; book

lung covers small, ovoid; scuto-pedicel region less than diameter of pedicel, paired scutal ridges short, not connected. Palpal patella 0.252 long, 0.144 wide, connection to femur at 0.58; bulb ventrally slightly bulging, with strong medially directed prolateral extension at the middle of the bulb, tip broad with short, prolateral, ribbed fold bent distally, 'fenestra' between extension and fold (Fig. 111H).

Female. Unknown.

**Distribution**. This species is known only from the type locality in the Pilbara region of Western Australia.

Opopaea durranti Baehr & Harvey, sp. nov. (Figs 112A-J)

Material examined. Holotype &: AUSTRALIA: Western Australia: 13.5 km W of Henry River crossing on Uaroo Glen Florrie Road, 22.91777°S, 115.57750°E, 1 Oct. 2003-30 Sept. 2004, CALM Pilbara Survey (WAM T81979, PBI\_OON 04649).

Other material examined. AUSTRALIA: Western Australia: 5 &, 21 km WNW of Bonney Downs Homestead, 22.09472°S, 119.75333°E, 7 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T78350, PBLOON 4653); 3 &, 13.5 km W of Henry River crossing on Uaroo Glen Florrie Road, 22.91777°S, 115.57750°E, 1 Oct. 2003–30 Sept. 2004, CALM Pilbara Survey (WAM T121134, PBLOON 23625).

**Etymology.** This species is named for Bradley Durrant, who collected and sorted much of the Pilbara Survey spiders.

Diagnosis. Males resemble those of *O. gracillima* in having scuto-pedicel region about 1/2 diameter of pedicel, paired ridges nearly straight, connected medially and palpal tip narrow with longitudinal prolateral ridge, but can be distinguished by the pointed, ventrally incised tip and the small 'fenestra' (Figs 112H, I).

Description. Male (PBI\_OON 04649, Figs 112A–J). Total length 1.44. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.070; PME: 0.066; PLE: 0.052, ALE largest, ALE circular,

PME oval; posterior eye row straight from above; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits. Abdomen, book lung covers small, ovoid; scuto-pedicel region about 1/2 diameter of pedicel, paired ridges flat, connected medially. Palpal patella 0.270 long, 0.142 wide, connection to femur at 0.58; bulb ventrally strongly bulging, tip pointed, ventrally incised with one prolateral folded ridge, 'fenestra' small (Figs 112H, I).

Female. Unknown.

**Distribution.** This species is known only from Pilbara in Western Australia.

Opopaea ectognophus Harvey & Edward

Opopaea ectognophus Harvey and Edward, 2007: 10-12, figs 1-5.

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Mesa G, 24.8 km SW of Pannawonica (Borehole MEGRC0130, trap 2), 21°44′10″S, 116°06′28″E, depth 20 m, (March-May 2005, M. Greenham, D. Kamien and L. Mould (WAM T65789).

Diagnosis. Opopaea ectognophus and O. phineus are the only fully blind species of the genus currently known. Opopaea ectognophus differs from O. phineus by being significantly smaller (total length 1.12 versus 1.50), the dorsal abdominal scute only partially covers the opisthosoma (it covers all of the opisthosoma in O. phineus), the shape of the carapace in which the postero-lateral margins of O. ectognophus are rounded, and less angulate than in O. phineus, and the sternum of O. ectognophus lacks apodemes leading away from coxae II-IV which are present in O. phineus.

Description. *Male*. See Harvey and Edward (2007).

Female, Unknown.

**Distribution.** This species is known only from a single bore in the Pilbara region of Western Australia.

### Opopaea exoculata Baehr & Harvey, sp. nov. (Figs 113A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Moorimoordinina, 22.45194°S, 119.97611°E, 9 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T78373, PBI\_OON 04028).

Other material examined. AUSTRALIA: Western Australia: 1 3, Moorimoordinina, 22.45194°S, 119.97611°E, 9 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T121113, PBI\_OON 23615).

Etymology. The specific name *exoculata* is a Latin adjective (feminine) meaning having no eyes and refers to the strongly reduced eyes to pale areas that look eye-shaped of the species.

Diagnosis. Males resemble those of *O. aculenta* in general body shape, having reduced eyes, scuto-pedicel area less than ½ diameter of pedicel, paired scutal ridges absent and sternum distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV, but can be distinguished by the absence of the two strong prolateral bulbal spines and the broad spatulate tip, 'fenestra' small (Figs 113H, I).

Description. Male (PBI\_OON 04028, Figs 113A-J). Total length 1.01. Prosoma, mouthparts and abdominal scutae yellow, legs white, palps orange brown. Carapace elongate oval in dorsal view, pars cephalica flat in lateral view, with rounded posterolateral corners, surface smooth. front pale brown; lateral margin straight, rebordered, without denticles. Eyes strongly reduced to pale areas. Sternum about twice as long as wide, without radial furrows between coxae I-II, II-III, III-IV, distance between coxae ll and III greater than distance between coxae 1 and 11, and coxae III and IV. Abdomen, book lung covers large, ovoid; scuto-pedicel region less than 1/2 diameter of pedicel, pedicel without dorsolateral extensions, paired scutal ridges absent. Palpal patella 0.234 long, 0.111 wide, connection to femur at 0.52; bulb ventrally slightly bulging with broad spatulate tip and longitudinal ridge prolaterally, 'fenestra' small (Figs 113H, I).

Female. Unknown.

**Distribution.** This species is known only from the type locality situated in the Pilbara region of Western Australia.

### Opopaea flava Baehr & Harvey, sp. nov. (Figs 114A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 7 km SE of Marda Pool, 21.06972°S, 116.20666°E, 25 Sept. 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82070, PBI\_OON 04037).

Other material examined. AUSTRALIA: *Western Australia*: 1 &, 9 km NW of Lake Poongkaliyarra, 20.93972°S, 117.03472°E, 3 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82067, PBI\_OON 4034); 3 &, 7 km SE of Marda Pool, 21.06972°S, 116.20666°E, 25 Sept. 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82068, PBI\_OON 4035); 6 &, same data (WAM T82094, PBI\_OON 5039); 1 &, same data (WAM T121118, PBI\_OON 23617); 1 &, 1.2 km SSE of Millstream, 21.60416°S, 117.07750°E, 14 July 2003–12 Oct. 2004, CALM Pilbara Survey (WAM T82073, PBI\_OON 4040); 1 &, 3.5 km WNW of Mt Gregory, 20.85250°S, 117.09583°E, 5 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82064, PBI\_OON 4032); 1 &, 5 km WSW of Python Pool, 21.34111°S, 117.18833°E, 8 May 2004–12 May 2005, CALM Pilbara Survey (WAM T82069, PBI\_OON 4036); 1 &, 13.5 km W of Wickham, 20.68833°S, 117.00666°E, 6 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82072, PBI\_OON 4039).

Etymology. The specific name *flava* is a Latin adjective (feminine) meaning yellow and refers to the the yellow body color of the species.

Diagnosis. Males resemble those of *O. exoculata* in general body shape, having scutopedicel area less than ½ diameter of pedicel and sternum distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV, but can be distinguished by the presence of the eyes and by the elongated, flat abdomen with a longitudinal ridge from the sperm pore to the middle of the postepigastric scutum (Figs 114C, G).

Description. Male (PBl\_OON 4037, Figs 114A-J). Total length 1.18. Prosoma, mouthparts and abdominal scutae yellow, legs white, palps orange brown. Carapace elongate oval in dorsal view, pars cephalica flat in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin rebordered, without denticles. Eyes, silver; ALE: 0.048; PME:

0.066; PLE: 0.047, PME largest, ALE circular, PME oval; posterior eye row recurved from above; ALE separated by more than their diameter, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, without radial furrows between coxae I-II, II-III, III-IV, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings, distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV. Abdomen elongated; book lung covers large, ovoid; scuto-pedicel area less than 1/2 diameter of pedicel, with paired scutal ridges not connected and plumose setae lateral of pedicel, pedicel tube with triangular, lateral extensions; postepigastric scutum with a longitudinal ridge from the epigastric fold to the middle of the postepigastric scutum. Palpal patella, 0.241 long, 0.122 wide, connection to femur at 0.53; bulb ventrally slightly bulging, tip with prolaterally pointed, distally striated 'fenestra' small, close to tip (Fig. 114 I).

Female. Unknown.

**Distribution.** This species is known only from the Pilbara in Western Australia.

#### Opopaea fragilis Baehr & Harvey, sp. nov. (Figs 115A-J)

Material examined. Holotype ♂: AUSTRALIA: *Western Australia*: Mt. Gibson Station, eucalypt forest, litter, 29.68972°S, 117.36638°E, 21–29 Aug. 2001, R. Leys, K. Ottewell (WAM T129257, PBI\_OON 22894).

Etymology. The specific name *fragilis* is a Latin adjective (feminine) meaning fragile and refers to the fragile body shape of this species.

Diagnosis. Males resemble those of *O. exoculata* in general body shape, having reduced eyes, scuto-pedicel area less than 1/2 diameter of pedicel, paired scutal ridges absent and a sternum distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV, but can be distinguished by the presence of eyes and bulbal tip with deep prolateral distally striated excavation (Fig. 115 I).

Description. Male (PBI\_OON 22894, Figs 115A-J). Total length 1.18. Prosoma, mouthparts and abdominal scutae yellow, legs white, palps orange brown. Carapace elongate oval in dorsal view, pars cephalica flat in lateral view, with rounded posterolateral corners, surface smooth, lateral margin undulate, rebordered, without denticles. Eyes reduced, tiny, ALE: 0.023; PME: 0.024; PLE: 0.022, PME largest, all eyes circular; posterior eye row recurved from above, straight from front; ALE separated by more than their diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME separated by less than PME radius. Sternum longer than wide, without radial furrows between coxae I-II, II-III, III-IV, surface smooth, without pits, distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV. Abdomen ovoid; book lung covers small, ovoid; scuto-pedicel area less than 1/2 diameter of pedicel, without scutal ridges; dorsal scutum weakly sclerotized, covering 3/4 of abdomen; postepigastric scutum weakly sclerotized, covering about 3/4 of abdominal length. Palpal patella 0.192 long, 0.098 wide, connection to femur at 0.43; bulb ventrally strongly bulging, tip with deep prolateral excavation, distally striated, 'fenestra' small (Fig. 115 I).

Female. Unknown.

Distribution. This species is known only from the type locality in Western Australia.

# Opopaea framenaui Baehr & Harvey, sp. nov. (Figs 116A-J, 117A-H)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Hepburn Heights site HH3, 31.81722°S, 115.77027°E, 13 July-25 Sept. 1995, M. Harvey, J. Waldock (WAM T121131, PBI\_OON 23632). Allotype ♀: collected with holotype (WAM T121141, PBI\_OON 46762).

Other material examined. AUSTRALIA: Western Australia: 1 ♂, 1 ♀, Hepburn Heights, site HH3, 31.81722°S, 115.77027°E, 13 July-25 Sept. 1995, M. Harvey, J. Waldoc,k (WAM T84867, PBI\_OON 18029); 1 ♂, Hepburn Heights, site HH4, 31.81583°S, 115.77805°E, 25 Sept.-28 Nov. 1995, M. Harvey, J. Waldock (WAM T121148, PBI\_OON 23635).

**Etymology.** This species is named for Volker Framenau for his immense contributions to arachnology.

Diagnosis. Males and females resemble those of *O. marangaroo* in general body shape, scuto-pedicel area about diameter of pedicel and paired curved scutal ridges present, not connected at middle. Males similarly have the palpal cymbium separated by a seam, but can be distinguished by the palpal patella connection to femur at 0.36 (Fig. 116J). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) arms strongly bent at half way, ends reaching beyond epigastric fold (Fig. 117H).

Description. Male (PBI\_OON 23632, Figs 116A-I). Total length 1.40. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace ovoid in dorsal view, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.087; PME: 0.076; PLE: 0.067, ALE largest, ALE circular, PME squared; posterior eye row straight from above; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth, covered with small pits between coxae IV. Abdomen ovoid; book lung covers small, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges weak not medially connected. Palpal patella 0.276 long, 0.164 wide, connection to femur at 0.36; cymbium with round patch of slender curved plumose setae that have a pointed tip; bulb ventrally strongly bulging, with seam between cymbium and bulb, tip broad with prolateral incision and folds, 'fenestra' small (Figs 116H, I).

Female (PBI\_OON 46762, Figs 117A-H). Total length 1.51. Eyes, ALE: 0.064; PME: 0.061; PLE: 0.049. Epigastric area, ventral view, epigastric fold (EF) posterior margin widely triangular, medially narrowed; in dorsal view paddle-like sclerite (PSc) arms strongly bent at half way, end reaching beyond epigastric fold; nail-like process (Na) small conical; globular appendix

(GAp) divided into hood and drop-shaped extension (Figs 117G, H).

Distribution. This species is known only from the type locality in Western Australia.

Opopaea gracilis Baehr & Harvey, sp. nov. (Figs 118A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 19.7 km WNW of Mt Berry, 22.43750°S, 116.27416°E, 8 Sept. 2003–10 Oct. 2004, CALM Pilbara Survey (WAM T82062, PBI\_OON 04029).

Other material examined. AUSTRALIA: Western Australia: 1 &, 7.5 km NNW of Mt Berry, 22.42472°S, 116.43250°E, 10 Sept. 2003–19 Oct. 2004, CALM Pilbara Survey (WAM T81941, PBl\_OON 4582); 2 &, 10.5 km W of Mt De Courcy, 22.71111°S, 116.40027°E, 7 Sept. 2003–11 Oct. 2004, CALM Pilbara Survey (WAM T81942, PBl\_OON 4583).

Etymology. The specific name *gracilis* is a Latin adjective (feminine) meaning slender or slim and refers to the slender body shape of the species.

Diagnosis. Males resemble those of *O. aculeata* in having reduced eyes, scuto-pedicel area less than 1/2 diameter of pedicel, paired scutal ridges absent, sternum distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV and two strong prolateral bulbal spines, but can be distinguished by the shorter palpal tip and the 'fenestra' not connected (Fig. 118H).

Description. Male (PBl\_OON 04029, Figs 118A-J). Total length 1.21. Prosoma, mouthparts and abdominal scutae yellow, legs white, palps orange brown. Carapace elongate, pars cephalica flat in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides finely reticulate; lateral margin straight, rebordered, without denticles. Eyes reduced, barely visible, ALE: 0.045; PME: 0.051; PLE: 0.046, PME largest, ALE circular, PME oval; posterior eye row recurved from above; ALE separated by more than their diameter, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, without radial furrows between coxae I-II, II-III, III-IV, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings, distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV. Abdomen, book lung covers large, ovoid; scuto-pedicel area less than 1/2 diameter of pedicel, paired scutal ridges absent; pedicel without small, dorsolateral, triangular extensions. Palpal patella 0.262 long, 0.131 wide, connection to femur at 0.51; bulb ventrally slightly bulging with two strong prolateral spines, tip narrow, trunk-shaped, 'fenestra' small, not connected to tip (Figs 118H, I)

Female. Unknown.

**Distribution**. This species is known only from the Pilbara in Western Australia.

Opopaea gracillima Baehr & Harvey, sp. nov. (Figs 119A-J, 120A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Hepburn Heights, site HH3 31.81722°S, 115.77027°E, 25 Sept.–28 Nov. 1995, M. Harvey, J. Waldock (WAM T121145, PBI\_OON 23622). Allotype ♀: collected with holotype (WAM T121146, PBI\_OON 23620).

Other material examined. AUSTRALIA: Western Australia: 5 3, Hepburn Heights, site HH3, 31.81722°S, 115.77027°E, 25 Sept.–28 Nov. 1995, M. Harvey, J. Waldock (WAM T84864, PBI\_OON 18026).

Etymology. The specific name *gracillima* is a Latin adjective (feminine) meaning slender, slim and refers to the slim body shape of the species.

Diagnosis. Males resemble those of *O. durranti* in having scuto-pedicel region about 1/2 diameter of pedicel, paired ridges nearly straight, connected medially, postepigastric scutum with semicircular area of pores with thin setae between apodemes and palpal tip narrow with longitudinal prolateral ridge, but can be distinguished by flat carapace, the smaller and slender body shape, the postepigastric scutum with semicircular area of pores between apodemes, the spatulate bulbal tip and the narrow 'fenestra' covered with ridges (Fig. 119 I). Females can be separated from all other WA *Opopaea* species by the low scuto-pedicel region with about 1/2 diameter of pedicel (Fig. 120G).

Description. *Male* (PBI\_OON 23622, Figs 119A-J). Total length 1.04. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow,

palpal patella orange brown. Carapace ovoid, pars cephalica flat in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides finely reticulate; lateral margin straight, rebordered, without denticles. Eyes, ALE: 0.065; PME: 0.052; PLE: 0.048, ALE largest, ALE circular, PME circular; posterior eye row straight from above; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum with radial furrows between coxae I-II, II-III, III-IV, barely visible, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid; book lung covers large, ovoid; scuto-pedicel area about 1/2 diameter of pedicel, paired scutal ridges n early straight, connected at middle; postepigastric scutum semicircular area of pores with thin setae between apodemes. Palpal patella 0.238 long, 0.139 wide, connection to femur at 0.53, bulb ventrally strongly bulging, tip spatulate, 'fenestra' narrow, margin covered with few ridges(Fig. 119 I).

Female (PBI\_OON 23620, Figs 120A-G). Total length 1.30. Eyes, ALE: 0.055; PME: 0.049; PLE: 0.044. Epigastric area, ventral view, epigastric fold (EF) anterior margin straight, posterior margin widely triangular, with small knob; in dorsal view paddle-like sclerite (PSc) with arms bent at 2/3; nail-like process (Na) long conical; globular appendix (GAp) divided into hood and broad drop-shaped extension (Fig. 120G).

**Distribution.** This species is known only from the type locality, Hepburn Heights, in Western Australia.

Opopaea harmsi Baehr & Harvey, sp. nov. (Figs 121A-J, 122A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Barrow Island, 20.78666°S, 115.45472°E, 17 May 2005, S. Callan (WAM T84442, PBI\_OON 17804). Allotype ♀: same data as holotype except 6 May 2006, S. Callan, R. Graham (WAM T84420, PBI\_OON 17782).

Other material examined. AUSTRALIA: Western Australia: 1 3, 1 2, Barrow Island, 20.78666°S, 115.45472°E, 6 May 2006, Curtin University staff

(WAM T84416, PBI\_OON 17778); 1 ♀, same data (WAM T84418, PBI\_OON 17780); 1 ♀, same data except S. Callan, R. Graham, 1 ♀ (WAM T84421, PBI\_ OON 17783); 1 ♀, same data except 17 May 2005, Curtin University staff (WAM T84443, PBI\_OON 17805); 2 ♀, same data except 6 May 2006, Curtin University staff (WAM T84446, PBI\_OON 17808); 1 ♀, same data (WAM T84447, PBI\_OON 17809); 2 ♀, same data except 24 July 1992, W.F. Humphreys et al. (WAM T57519, PBI\_OON 18056); 1 ♀, same data (WAM T57520, PBI\_OON 18057); 1 ♂, same data except 1 May 2007, S. Callan (WAM T89208, PBI\_OON 12070301) OON 236030); 1 &, same data except 15 Mar. 2006, S. Callan, R. Graham (WAM T84448, PBI\_OON 17810); 1 ♀, same data (WAM T84448, PBI OON 17810); 1 ♀, same data except 24 July 1992, W.F. Humphreys et al. (WAM T57517, PBI\_OON 18054); 1 ♀, same data except 1 May 2007, S. Callan, K. Edwards (WAM T89214, PBI\_OON 23629); 1 3, same data (WAM T89208, PB1\_OON 23630).

Etymology. This species is named for Danilo Harms for his contributions to Australian arachnology.

Diagnosis. Males and females resemble those of *O. pallida* in general body shape, scutopedicel region about diameter of pedicel and paired scutal ridges weak, not connected. Males similarly have the palpal tip narrow with prolateral ridge, but can be recognised by the more elongated palpal bulb and tip with semicircular ridge (prolateral view) (Fig. 121H). In females the epigastric area in ventral view has epigastric fold (EF) posterior margin straight with small median knob (Fig. 122F).

Description. Male (PBI\_OON 17804, Figs 121A-J). Total length 1.32. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin rebordered, with blunt denticles. Eyes well developed, ALE: 0.062; PME: 0.062; PLE: 0.051, ALE, PME subequal, larger than PLE, ALE circular, PME squared; posterior eye row straight from above; ALE separated by less than their radius, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, reduced; with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid; book lung covers large, ovoid; scuto-pedicel

region about diameter of pedicel, paired scutal ridges not connected. Palpal patella 0.253 long, 0.131 wide, connection to femur at 0.55; bulb ventrally strongly bulging, tip pointed with prolateral semicircular ridge, 'fenestra' small (Figs 121H, I).

Female (PBI\_OON 17782, Figs 122A-G). Total length 1.69. Eyes, ALE: 0.065; PME: 0.065; PLE: 0.062. Epigastric area, ventral view, epigastric fold (EF) posterior margin straight with small median knob, small posterior concavity between lateral apodemes; in dorsal view paddle-like sclerite (PSc) with straight arms bent at 1/2 length, just reaching epigastric fold; nail-like process (Na) conical; globular appendix (GAp) mushroom-shaped (Fig. 122G).

Distribution. This species is known only from Barrow Island in Western Australia.

Opopaea johannae Baehr & Harvey, sp. nov. (Figs 123A-J, 124A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 46 km NNE of Whim Creek Hotel, 20.47555°S, 117.99527°E, 9 July 2003–4 Oct. 2004, CALM Pilbara Survey (WAM T82047, PBI\_OON 4625). Allotype ♀: collected with holotype (WAM T121111, PBI\_OON 19615).

Other material examined. AUSTRALIA: Western Australia: 1 &, Barrow Island, 20.78666°S, 115.45472°E, 6 May 2006, S. Callan, R. Graham (WAM T84410, PBI\_ OON 17772); 1 ♀, same data (WAM T84417, PBI\_OON 17779); 1 8, same data except 24-29 Apr. 2005, K. Edward, S. Callan (WAM T84444, PBI\_OON 17806); 16, same data except 17-22 May 2005, S. Callan (WAM T84445, PBI\_OON 17807); 1 d, same data except 25 Apr.-1 May 2007, K. Edward (WAM T89099, PBI\_OON 23628); 12 8, 4 9, 1 km W. of Warehouse, 20.72860°S, 115.43220°E, 4 Nov.-3 Dec. 1993, M.S. Harvey, J.M. Waldock (WAM T57523, PBI\_OON 18060); 1 ♂, same data except 4 Nov.-3 Dec. 1993, M.S. Harvey, J.M. Waldock (WAM T121131, PBI\_OON 23622); 1 ♀, same data (WAM T121141, PBI\_OON 23623); 8  $\Im$ , 3  $\Im$ , Bandicoot Bay, 20.86770°S, 115.33360°E, 4 Nov.-3 Dec. 1993, M.S. Harvey, J.M. Waldock (WAM T57518, PBI\_ OON 18055); 1 ♀, near Barge Landing, site QUBL2, 25 Aug.-1 Sept. 2004, K. Edward, L. Mould (WAM T7322,3, PBI\_OON 18053); 19 ♂, 8 ♀, WAPET Camp, 20.82860°S, 115.44440°E, 5 Nov.-3 Dec. 1993, M.S. Harvey, J.M. Waldock (WAM T5752, 1, PBI\_OON 18058); 1 3, 7 km SE of Marda Pool, 21.06972°S, 116.20666°E, 25 Sept. 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82159, PBI\_OON 5104); 6 & 1 ♀, 46 km NNE of Whim Creek Hotel, 20.47555°S,

117.99527°E, 9 July 2003–4 Oct. 2004, CALM Pilbara Survey (WAM T121112, PBI\_OON 48259).

Etymology. The specific name is for Johanna Baehr, the daughter of the senior author who has helped collect and database goblin spiders for this project.

Diagnosis. Males and females resemble those of *O. millstream* in general body shape, having a finely reticulated carapace, scuto-pedicel region less than diameter of pedicel and paired scutal ridges short, not connected. In males the patella connection to femur at anterior half and the broad complex folded bulbal tip are also similar, but they can be distinguished by the triangular medially directed prolateral extension close to palpal tip (Fig. 123 I). In females the epigastic fold (EF) posterior margin is slightly bowed with median triangle (Fig. 124G).

Description. Male (PBI OON 04625, Figs 123A-J). Total length 1.41. Prosoma, mouthparts and abdominal scutae pale orange, palp orange brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with rounded posterolateral corners, surface finely reticulate; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.077; PME: 0.074; PLE: 0.066, ALE largest, ALE circular, PME circular; posterior eye row recurved from above; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME separated by less than their radius, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth. Abdomen, book lung covers large, ovoid; scuto-pedicel region less than diameter of pedicel, paired scutal ridges short, not connected; pedicel with small, dorsolateral, triangular extensions. Palpal patella 0.241 long, 0.137 wide, connection to femur at 0.56; bulb ventrally slightly bulging, with strong triangular medially directed prolateral extension close to palpal tip, tip broad with big prolateral ribbed fold bent distally, 'fenestra' large, close to tip (Fig. 123 I).

Female (PBI\_OON 19615, Figs 124A-G). Total length 1.41. Eyes, ALE: 0.077; PME: 0.074; PLE: 0.066. Epigastric area, ventral view, epigastric

fold (EF) posterior margin slightly bowed with median triangle and two semicircular concavities on each side of triangle; in dorsal view paddle-like sclerite (PSc) with straight arms not reaching epigastric fold; nail-like process (Na) small conical; globular appendix (GAp) globular (Fig. 124G).

Distribution. This species is known from Barrow Island and the Pilbara in Western Australia.

Opopaea julianneae Baehr & Ott, sp. nov. (Figs 125A-J)

Material examined. Holotype &: AUSTRALIA: Western Australia: 9.5 km ESE of Marda Pool, 21.06305°S, 116.23500°E, 24 Sept. 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82003, PBl\_OON 04675).

Other material examined. AUSTRALIA: Western Australia: 6 &, 9.5 km ESE of Marda Pool, 21.06305°S, 116.23500°E, 24 Sept. 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T121129, PBI\_OON 48267); 1 &, 1.2 km SSE of Millstream, 21.60416°S, 117.07750°E, 14 July 2003–12 Oct. 2004, CALM Pilbara Survey (WAM T82090, PBI\_OON 5035).

Etymology. This species is named for Julianne Waldock of the Western Australian Museum who has collected many goblin spiders.

Diagnosis. Males resemble those of *O. rugosa* in general body shape and postepigastric scutum with longitudinal elevated ridge, covered with a line of slim plumose setae between lateral apodemes, but can be recognised by scuto-pedicel region about diameter of pedicel, paired scutal ridges touching and bulb ventrally slightly bulging, prolateral part of tip with small, ribbed, squared fold and small 'fenestra' (Fig. 125 I).

Description. Male (PBI\_OON 4675, Figs 125A-J). Total length 1.48. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.076: PME: 0.084; PLE: 0.053, PME largest, ALE oval, PME squared; posterior eye row straight from above; ALE separated by their radius to diameter,

ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME separated by less than PME radius. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth, with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid; book lung covers small, ovoid; scuto-pedicel region about diameter of pedicel, paired ridges nearly connected; postepigastric scutum anterior margin with longitudinal elevated ridge and line of fine plumose setae between lateral apodemes. Palpal patella 0.293 long, 0.157 wide, connection to femur at 0.57; bulb ventrally slightly bulging, prolateral part of tip with small, ribbed, squared fold and small 'fenestra' (Fig. 125 I).

Female. Unknown.

**Distribution.** This species is known from the Pilbara in Western Australia.

Opopaea marangaroo Baehr & Harvey, sp. nov. (Figs 126A-J, 127A-H)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Marangaroo Reserve, site MR1, 31.83080°S, 115.83420°E, 25 Sept.-28 Nov. 1995, M. Harvey, J. Waldock (WAM T84871, PBI\_OON 18033). Allotype ♀: collected with holotype (WAM T121150, PBI\_OON 23637)

Other material examined. AUSTRALIA: Western Australia:  $1 \circlearrowleft 1 \circlearrowleft 1 \hookrightarrow 1$  Marangaroo Reserve, site MR1, 31.83080°S, 115.83420°E, 25 Sept.–28 Nov. 1995, M. Harvey, J. Waldock (WAM T121149, PBI\_OON 23636).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males and females resemble those of *O. framenaui* in general body shape, scuto-pedicel area about diameter of pedicel and paired curved scutal ridges present, not connected at middle. Males similarly have the palpal cymbium separated by seam, but can be distinguished by the palpal patella connection to femur at 0.52, bulb dorsally with retrolaterally directed spike, tip broad, with a striated fanned patch and prolateral folds, 'fenestra' narrow (Fig. 126 I). In females, the epigastric area in dorsal view has paddle-like sclerite (PSc) with slightly bowed arms, not reaching epigastric fold (Fig. 127H).

Description. Male (PBI\_OON 18033, Figs 126A-J). Total length 1.46. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.074; PME: 0.067; PLE: 0.046, ALE largest, ALE circular, PME oval; posterior eye row straight from above; ALE separated by less than their radius, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with row of large pits, surface smooth. Abdomen, book lung covers large, ovoid; scuto-pedicel area about diameter of pedicel, paired scutal ridges nearly straight, not connected at middle; postepigastric scutum with small area of pores with thin setae between apodemes. Palpal patella 0.295 long, 0.160 wide, connection to femur at 0.52; cymbium with a small patch of more slender plumose setae with acute tip, bulb ventrally strongly bulging, dorsally with retrolaterally directed spike, tip broad, with a striated fanned patch and prolateral folds, 'fenestra' narrow (Figs 126H, I).

Female (PBI\_OON 23637, Figs 127A-H). Total length 1.55. Eyes, ALE: 0.059; PME: 0.057; PLE: 0.042. Epigastric area, ventral view, epigastric fold (EF) strongly bowed with tiny triangular middle part; in dorsal view paddle-like sclerite (PSc) with slightly bowed arms not reaching epigastric fold; nail-like process (Na) conical; globular appendix (GAp) tiny globular connected with strong triangular plate (Fig. 127H).

Distribution. This species is known only from the type locality in Western Australia.

Opopaea millstream Baehr & Harvey, sp. nov. (Figs 128A-J, 129A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 1.2 km SSE of Millstream, 21.60416°S, 117.07750°E, 14 July 2003–12 Oct. 2004, CALM Pilbara Survey (WAM T81936, PBI\_OON 04630). Allotype ♀: collected with holotype (WAM T121107, PBI\_OON 20193).

Other material examined. AUSTRALIA: Western Australia: 37  $\circlearrowleft$ , 35  $\circlearrowleft$ , 4 km N of Barowanna Hill, 21.39472°S, 117.17055°E, 17 July 2003–11 Oct. 2004, CALM Pilbara Survey (WAM T81913, PBI\_OON 4566); 6  $\circlearrowleft$ , 7  $\circlearrowleft$ , 1.2 km SSE of Millstream, 21.60416°S, 117.07750°E, 14 July 2003–12 Oct. 2004, CALM Pilbara Survey (WAM T121108, PBI\_OON 20122).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. jolumnae* in general body shape, having a finely reticulated carapace, scuto-pedicel region less than diameter of pedicel, paired scutal ridges short, not connected, palpal patella connection to femur at anterior half and the broad complex folded bulbal tip, but can be distinguished by the cuticular prolateral fold at the middle of the palpal bulb (Fig. 128 I). In females the epigastric fold (EF) posterior margin has a small median knob.

Description. Male (PBI\_OON 04630, Figs 128A-J). Total length 1.33. Prosoma, mouthparts and abdominal scutae pale orange, palp orange brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with rounded posterolateral corners, surface finely reticulate; lateral margin straight, rebordered, without denticles. Eyes, ALE: 0.075; PME: 0.071; PLE: 0.060, ALE largest, ALE circular, PME circular; posterior eye row recurved from above; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth, infra-coxal grooves weak. Abdomen ovoid; book lung covers large, ovoid; scuto-pedicel region less than diameter of pedicel, paired scutal ridges short, not connected; pedicel with small, dorsolateral, triangular extensions. Palpal patella 0.232 long, 0.140 wide, connection to femur at 0.53; bulb ventrally slightly bulging, with deep prolateral fold at the middle of the bulb, tip broad with long prolateral ribbed fold bent distally, 'fenestra' close to tip (Figs 128H, I).

Feniale (PBI\_OON 20193, Figs 129A-G). Total length 1.55. Eyes, ALE: 0.069; PME: 0.063; PLE: 0.055. Epigastric area, ventral view, epigastric

fold (EF) slightly bowed with triangular middle part and two semicircular concavities on each side of triangle (Fig. 129F); in dorsal view paddle-like sclerite (PSc) with straight arms bent at the end, not reaching epigastric fold; nail-like process (Na) narrow conical; globular appendix (GAp) globular (Fig. 129G).

**Distribution.** This species is known from the Pilbara in Western Australia.

Opopaea nadineae Baehr & Harvey, sp. nov. (Figs 130A-J, 131A-H)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 32 km E of Port Hedland, 20.32444°S, 118.92222°E, 25 July 2005–25 Aug. 2006, CALM Pilbara Survey (WAM T82025, PBI\_OON 04700). Allotype ♀: 32 km E of Port Hedland, 20.32444°S, 118.92222°E, 25 July 2005–25 Aug. 2006, CALM Pilbara Survey (WAM T121135, PBI\_OON 48269).

Other material examined. AUSTRALIA: Western Australia:  $3 \circlearrowleft, 5 \circlearrowleft, 32 \text{ km} \text{ E of Port Hedland, } 20.32444 \degree \text{S, } 118.92222 \degree \text{E, } 25 \text{ July } 2005–25 \text{ Aug. } 2006, \text{ CALM Pilbara Survey (WAM T121139, PBI_OON 48269); } 2 \circlearrowleft, 6 \circlearrowleft, 45 \text{ km NE of Whim Creek Hotel, } 20.60722 \degree \text{S, } 118.15638 \degree \text{E, } 7 \text{ July } 2003–4 \text{ Oct. } 2004, \text{ CALM Pilbara Survey (WAM T82024, PBI_OON 4699).}$ 

Etymology. This species is named for Nadine Guthrie, who collected and sorted many of the Pilbara Survey spiders.

Diagnosis. Males resemble those of *O. triangularis* in having scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc, an elevated triangle of ridges between lateral apodemes, patella connection to femur at anterior half and a strong prolateral spine at the bulbal base, but can be distinguished by the broadly oval and posteriorly pointed abdomen and the wider triangle between lateral apodemes (Fig. 130C). In females the epigastic fold (EF) posterior margin is slightly bowed with narrow median triangle (Fig. 131D).

Description. Male (PBI\_OON 04700, Figs 130A-J). Total length 1.18. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides

striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.049; PME: 0.068; PLE: 0.044, PME largest, ALE circular, PME squared; posterior eye row straight from above; ALE separated by more than their diameter, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Abdomen broadly oval, pointed posteriorly; book lung covers small, ovoid; scuto-pedicel region less than diameter of pedicel, paired curved ridges connected medially by arc (Fig. 130F); anterior margin of postepigastric scutum with wide, elevated triangle of ridges between apodemes (Fig. 130C). Palpal patella 0.278 long, 0.138 wide, connection to femur at 0.55; bulb ventrally strongly bulging with strong prolateral spine, tip spatulate with narrow prolateral incision and longitudinal ridge, 'fenestra' small (Figs 130H, I).

Female (PBI\_OON 48269). Total length 1.18. Eyes, ALE: 0.053; PME: 0.069; PLE: 0.040. Epigastric area, ventral view, epigastric fold (EF) posterior margin slightly bowed with narrow median triangle (Fig. 131G) and semicircular concavities on each side of triangle; in dorsal view paddle-like sclerite (PSc) with straight arms bent at 2/3 length, just reaching epigastric fold; nail-like process (Na) narrow conical; globular appendix (GAp) globular (Fig. 131H).

Distribution. This species is known only from the Pilbara in Western Australia.

# Opopaea pallida Baehr & Harvey, sp. nov. (Figs 132A-J, 133A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 45 km NE of Whim Creek Hotel, 20.60722°S, 118.15638°E, 7 July 2003–4 Oct. 2004, CALM Pilbara Survey (WAM T121137, PBI\_OON 04598). Allotype ♀: collected with holotype (WAM T121138, PBI\_OON 23679).

Other material examined. AUSTRALIA: Western Australia: 2 \( \, \), 8 km SSW of Dresser Mining Centre, 21.21805°S, 119.40194°E, 12 Oct. 2005-18 Aug. 2006, CALM Pilbara Survey (WAM T81965, PBI\_OON 4634); 1 \( \, \, \, 3 \, \, 5.5 \) km NE of Giles Point, 23.21333°S, 119.20222°E, 30 Aug. 2003-19 Oct. 2004, CALM Pilbara Survey (WAM T81997, PBI\_OON 4669); 2 \( \, \, \, 10 \) km S of Mallina Homestead, 20.96944°S, 118.04833°E, 11 July 2003-3 Oct. 2004, CALM Pilbara Survey (WAM T81957, PBI\_OON 4600); 1 \( \, \, 7 \) km SE of Marda Pool, 21.06972°S, 116.20666°E, 25 Sept. 2003-3 Oct. 2004, CALM Pilbara Survey (WAM

T81946, PBI\_OON 4588); 1  $\circlearrowleft$ , same data (WAM T82103, PBI\_OON 5048); 2  $\circlearrowleft$ , 2  $\circlearrowleft$ , 9.5 km ESE of Marda Pool, 21.06305°S, 116.23500°E, 24 Sept. 2003-3 Oct. 2004, CALM Pilbara Survey (WAM T81984, PBI\_OON 4656); 1 \, 10 \, km E \, of Meentheena Outcamp, 21.24611°S, 120.53888°E, 1 Aug. 2003–13 Oct. 2004, CALM Pilbara Survey (WAM T81961, PBI\_OON 4604); 1 ♂, 1 ♀, same data (WAM T81967, PBI\_OON 4636); 5 ♂, 3 ♀, 10.5 km NW of Mt Berry, 22.41055°S, 116.39166°E, 10 Sept. 2003-9 Oct. 2004 CALM Pilbara Survey (WAM T82009, PBI\_OON 4682); 2 &, 19.7 km WNW of Mt Berry, 22.43750°S, 116.27416°E, 8 Sept. 2003-10 Oct. 2004, CALM Pilbara Survey (WAM T82071, PBI\_OON 4038); 11 ♂, 11 ♀ 7.5 km NNW of Mt Berry, 22.42472°S, 116.43250°E, 10 Sept. 2003-19 Oct. 2004, CALM Pilbara Survey (WAM T82020, PBI\_OON 4693); 5 ♂, 15 ♀, 10.5 km W of Mt De Courcy, 22.71111°S, 116.40027°E, 7 Sept. 2003-11 Oct. 2004, CALM Pilbara Survey (WAM T81943, PBI\_OON 4585); 4 ♂, 3 ♀, 27 km ÉSÈ of Mt De Courcy, 22.78916°S, 116.57083°E, 7 Sept. 2003-12 Oct. 2004, CALM Pilbara Survey (WAM T82001, PBI\_OON 4673); 4 \(\Quad \text{, 1 km SW of Mt Florance Homestead, 21.79500°S, 117.85694°E, 6 May 2004–18}\) May 2005, CALM Pilbara Survey (WAM T81949, PBI\_OON 4592); 1 ♀, 0.2 km N of Mt Florance Homestead, 21.78666°S, 117.86194°E, 3 Sept. 2003–10 Oct. 2004, CALM Pilbara Survey (WAM T81952, PBI\_OON 4595); 3 ♂, 3 ♀, 7 km SSE of Mt Minnie, 22.16944°S, 115.56083°E, 27 Sept. 2003–30 Sept. 2004, CALM Pilbara Survey (WAM T81982, PBI\_OON, CALM PILbara Survey (WAM T81982, PBI\_O 22.16944°S, 115.56083°E, 27 Sept. 2003–30 Sept. 2004, CALM Pilbara Survey (WAM T81982, PBI\_OON 4654); 1 \$\delta\$, 24 km NNE of Nullagine, 21.67722°S, 120.15527°E, 4 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T82053, PBI\_OON 4017); 2 \$\Q22\$, same data (WAM T81956, PBI\_OON 4599); 1 \$\delta\$, same data (WAM T121114, PBI\_OON 20196); 1 \$\Q22\$, 42.5 km N of Nullagine, 21.49916°S, 120.10888°E, 3 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T82012, PBI\_OON 4685); 1 \$\Q22\$, 12.5 km E of Pannawonica, 21.62722°S, 116.44583°E, 2 Oct. 2005–27 Sept. 2006, CALM Pilbara Survey (WAM T81944, 27 Sept. 2006, CALM Pilbara Survey (WAM T81944, PBI\_OON 4586); 1 &, 37.5 km SE of Paraburdoo, 23.37305°S, 117.98972°E, 29 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T82014, PBI\_OON 4687); 1 &, 5 km WSW of Python Pool, 21.34111°S, 12.30323°F, and 12.3032°F, and 12.3 117.18833°E, 8 May 2003–12 May 2005, CALM Pilbara Survey (WAM T121119, PBI\_OON 48261); 1 \$\rightarrow\$, 11.5 km SW of Rhodes Ridge, 23.14583°S, 119.26555°E, 25 May 2004–11 May 2005, CALM Pilbara Survey (WAM T82000, PBI\_OON 4672); 4 3, 5 \$\, 6 km SW of Roy Hill Station, 22.66083°S, 119.91861°E, 9 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T81987, PBI\_OON 4659); 1 \$\frac{1}{2}\$, 32.5 km WSW of Tom Price, 22.79750°S, 117.49444°E, 26 Aug. 2005–22 Sept. 2006, CALM Pilbara Survey (WAM T81981, PBI\_OON 4652); 1 \, \( \), 6 km ENE of Tom Price, 22.6800°S, 117.84777°E, 3 Aug. 2005–18 Sept. 2006, CALM Pilbara Survey (WAM T81999); PBI\_OON 4671); 1 \( \), 2 \, \( \), 23 km NE of Warrawagine Homestead, 20.69833°S, 120.85638°E, 1 July 2005–21 Aug. 2006. CALM Pilbara Survey: (WAM T81975) Aug. 2006, CALM Pilbara Survey (WAM T81975,

PBI\_OON 4645); 1 ♂, 1 ♀, 11 km NE of Weeli Wolli Spring, 22.83722°S, 119.27111°E, 30 Aug. 2003–16 Oct. 2004 CALM Pilbara Survey (WAM T82013, PBI\_OON 4686); 2 ♂, 1 ♀, 10 km SSE of Wheelarra Hill, 23.45833°S, 120.15583°E, 7 Sept. 2005–10 Aug. 2006, CALM Pilbara Survey (WAM T82016, PBI\_OON 4689); 1 ♂, 2 ♀, 33.5 km E of Wheelarra, 23.37250°S, 120.45805°E, 4 Sept. 2005–11 Aug. 2006, CALM Pilbara Survey (WAM T81963, PBI\_OON 4606); 2 ♂, 11 km SSE of Whim Creek Hotel, 20.91972°S, 117.86111°E, July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82034, PBI\_OON 4709); 5 ♀, same data (WAM T82035, PBI\_OON 4710); 2 ♀, 12.5 km S of Whim Creek Hotel, 20.94972°S, 117.84972°E, 13 May 2004–2 May 2005, CALM Pilbara Survey (WAM T81947, PBI\_OON 4590); 2 ♀, 20 km ESE of Whim Creek Hotel, 20.91000°S, 117.98277°E, 10 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T81968, PBI\_OON 4637); 1 ♀, 45 km NE of Whim Creek Hotel, 20.60722°S, 118.15638°E, 7 July 2003–4 Oct. 2004, CALM Pilbara Survey (WAM T81955, PBI\_OON 23680); 6 ♂, 1 ♀, 46 km NNE of Whim Creek Hotel, 20.47555°S, 117.99527°E, 9 July 2003–4 Oct. 2004, CALM Pilbara Survey (WAM T81971, PBI\_OON 4640); 2 ♀, 11 km N of Wodgina, 21.07166°S, 118.67972°E, 23 Sept. 2005–13 Sept. 2006, CALM Pilbara Survey (WAM T81966, PBI\_OON 4635); 1 ♀, 32.5 km SSE of Wodgina, 21.45833°S, 118.72583°E, 23 Sept. 2005–14 Sept. 2006, CALM Pilbara Survey (WAM T81985, PBI\_OON 4657); 1 ♂, 1♀, 5 km NNE of Wodgina, 21.12805°S, 118.68944°E, 23 Sept. 2005–13 Sept. 2006, CALM Pilbara Survey (WAM T81959, PBI\_OON 4602).

Etymology. The specific name *pallida* is a Latin adjective (feminine) meaning pale and refers to the pale body color of this species.

Diagnosis. Males resemble those of *O. harmsi* in general body shape, scuto-pedicel region about diameter of pedicel, paired scutal ridges weak, not connected and palpal tip narrow with prolateral ridge, but can be recognised by the more compact bulb and tip with s-shaped ridge (prolateral view) and larger 'fenestra' (Fig. 132A). In females the epigastric area in ventral view has epigastric fold (EF) posterior margin slightly bowed with wide rounded triangular middle part and small concavity just behind triangle (Fig. 133F).

Description. *Male* (PBl\_OON 4598, Figs 132A–J). Total length 1.23. Prosoma, mouthparts and abdominal scutae pale orange, legs yellow; palpal patella orange- brown. Carapace ovoid, pars cephalica slightly elevated, with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated;

lateral margin rebordered, without denticles. Eyes, ALE: 0.069; PME: 0.070; PLE: 0.055, PME largest, ALE circular, PME squared; posterior eve row recurved from above; ALE separated by less than their radius, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum longer than wide, with radial furrows between coxae I-II, II-III, III-IV, reduced, surface smooth, with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid; book lung covers large, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges weak, not connected. Palpal patella 0.246 long, 0.140 wide, connection to femur at 0.60; bulb compact, ventrally strongly bulging, tip narrow with longitudinal prolateral s-shaped ridge and large 'fenestra'.

Female (PBI\_OON 23679, Fig. 133A–G). Total length 1.27. Eyes, ALE: 0.064; PME: 0.065; PLE: 0.052. Epigastric area, ventral view, epigastric fold (EF) posterior margin slightly bowed with wide rounded triangular middle part and small concavity just behind triangle; in dorsal view paddle-like sclerite (PSc) with straight arms bent at 2/3 length (Fig. 133G), just reaching epigastric fold; nail-like process (Na) broad conical; globular appendix (GAp) globular.

**Distribution.** This species is widespread in the Pilbara of Western Australia.

Opopaea pannawonica Baehr & Ott, sp. nov. (Figs 134A-J, 135A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 7 km ENE of Pannawonica, 21.62194°S, 116.38972°E, 2 Oct. 2005–27 Sept. 2006, CALM Pilbara Survey (WAM T82049, PBI\_OON 04632). Allotype ♀: collected with holotype (WAM T121109, PBI\_OON 23616).

Other material examined. AUSTRALIA: *Western Australia*: 4 \$\(\delta\), 1 \$\operact{Q}\,, 24.5 km N of Cowra Line Camp, 22.13444°S, 119.02416°E, 27 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T82081, PBI\_OON 5026); 3 \$\(\delta\), 1 \$\operact{Q}\,, 12 km NE of Mile Camp, 22.70722°S, 119.70916°E, 10 Aug. 2003–21 Oct. 2004, CALM Pilbara Survey (WAM T81969, PBI\_OON 4638); 1 \$\(\delta\), 7 km SSE of Mt Minnie, 22.16944°S, 115.56083°E, 27 Sept. 2003–30 Sept. 2004, CALM Pilbara Survey (WAM T121132, PBI\_OON 48268); 1 \$\(\delta\), 7 km ENE of Pannawonica, 21.62194°S, 116.38972°E, 2 Oct. 2005–27 Sept. 2006, CALM Pilbara Survey (WAM T121110, PBI\_OON 23618).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. pilbara* in general body shape and in having scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc, postepigastric scutum with concavity between lateral apodemes, but can be recognised by the smaller eyes, palpal patella connection to femur 0.56; bulb ventrally slightly bulging, tip prolaterally spatulate, with striated ridge and wide incision, 'fenestra' small, opposite incision (Fig. 134 I). In females the epigastric area in dorsal view has paddle-like sclerite (PSc) arms slightly bowed, not reaching epigastric fold (Fig. 135G).

Description. Male (PBI\_OON 04632, Figs 134A-J). Total length 1.43. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace broadly oval, pars cephalica slightly elevated in lateral view, with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.054; PME: 0.059; PLE: 0.044, PME largest, ALE circular, PME oval; posterior eye row straight from above; ALE separated by their radius to diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV. furrow with rows of small pits, surface smooth. Abdomen ovoid, rounded posteriorly; book lung covers small, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc; postepigastric scutum with concavity between lateral apodemes. Palpal patella 0.296 long, 0.164 wide, connection to femur at 0.56; bulb ventrally slightly bulging, tip prolaterally spatulate, with striated ridge, and wide incision, 'fenestra' small, opposite incision (Figs 134H, I).

Female (PBI\_OON 23616, Figs 135A-G). Total length 1.69. Eyes, ALE: 0.051; PME: 0.052; PLE: 0.041; ALE-PLE separated by less than ALE radius, PLE-PME separated by less than PME radius. Epigastric area, ventral view, epigastric fold (EF) slightly bowed with narrow triangular middle

part; in dorsal view paddle-like sclerite (PSc) arms slightly bowed, not reaching epigastric fold (Fig. 135G); nail-like process (Na) conical; globular appendix (GAp) globular.

Distribution. This species is known only from the Pilbara in Western Australia.

### Opopaea phineus Harvey & Edward

Opopaea phineus Harvey and Edward, 2007: 12-14, figs 6-8.

Material examined. Holotype ♀: AUSTRALIA: Western Australia: cave KNI-27, Ningbing Range, 15°17′S, 128°41′E, 16 May 1994, R.D. Brooks (WAM T65943).

Diagnosis. Opopaea phineus and O. ectognophus are the only fully blind species of the genus currently known. Opopaea phineus differs from O. ectognophus by being significantly larger (total length 1.50 versus 1.12), the dorsal abdominal scute covers all of the opisthosoma (only partially covers the opisthosoma in O. ectognophus), the shape of the carapace in which the postero-lateral margins of O. phineus are more angulate than in O.ectognophus, and the sternum of O. phineus bears apodemes leading away from coxae II-IVwhich are absent in O. ectognophus.

Description. Male. Unknown.

Female. See (Harvey & Edward 2007).

**Distribution.** This species is known only from a single cave in the Kimberley region of Western Australia.

Opopaea pilbara Baehr & Ott, sp. nov. (Figs 136A-J, 137A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Tom Price, 32.5 km WSW, 22.79750°S, 117.49444°E, 26 Aug. 2005–22 Sept. 2006, CALM Pilbara Survey (WAM T81875, PBI\_OON 04384). Allotype ♀: collected with holotype (WAM T121136, PBI\_OON 23610).

Other material examined. AUSTRALIA: Western Australia: 2 3, 5 \, 32.5 km WSW of Tom Price, 22.79750°S, 117.49444°E, 26 Aug. 2005–22 Sept. 2006, CALM Pilbara Survey (WAM T121115, PBI\_OON 23611; 1 \, 46 km NNE of Whim Creek Hotel, 20.47555°S, 117.99527°E, 9 July 2003–4 Oct. 2004, CALM Pilbara Survey (WAM T81870, PBI\_OON 4492).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. wheelarra* in general body shape and in having scutopedicel region about diameter of pedicel, paired scutal ridges connected by arc, area between anterior and posterior spiracles slightly concave and dotted but no seatae, but can be recognised by smaller eyes, palpal patella connection to femur at 0.53; bulb more compact, ventrally slightly bulging, tip prolaterally incised, spatulate, bent medially with striated ridge, 'fenestra' small, opposite incision (Fig. 136 I). Females have epigastric fold (EF) anterior margin straight with small knob, posterior margin with 2 large chitinized edges (Fig. 137G).

Description. Male (PBI\_OON 04384, Figs 136A-J). Total length 1.87. Prosoma, mouthparts and abdominal scutae orange brown, legs pale orange. Carapace broadly oval, pars cephalica strongly elevated in lateral view, with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides reticulated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.078; PME: 0.079; PLE: 0.072, PME largest, ALE circular, PME circular; posterior eye row recurved from above; ALE separated by more than their diameter, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum as long as wide, with wide radial furrows, with rows of small pits, posterior margin reticulated, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid; book lung covers large, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc, pedicel with plumose setae laterally. Palpal patella 0.380 long, 0.194 wide, connection to femur at 0.53; bulb ventrally slightly bulging, tip prolaterally incised, spatulate, bent medially with striated ridge, 'fenestra' small, opposite incision (Fig. 136 I).

Female (PBI\_OON 23610, Figs 137A-G). Total length 2.04. Eyes, ALE: 0.081; PME: 0.077; PLE: 0.071, ALE largest. Epigastric area, ventral view, epigastric fold (EF) anterior margin straight with small knob, posterior margin with 2 large

chitinized edges; in dorsal view paddle-like sclerite (PSc) with straight arms bent at 2/3, reaching epigastric fold; nail-like process (Na) narrow conical; globular appendix (GAp) with long narrow extension (Figs 137F, G).

**Distribution.** This species is known only from the Pilbara in Western Australia.

Opopaea rixi Baehr & Harvey, sp. nov. (Figs 138A-J, 139A-H)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Hepburn Heights, site HH4, litter, 31.81583°S, 115.77805°E, 25 Sept.–28 Nov. 1995, M. Harvey, J. Waldock (WAM T121126, PBI\_OON 23633). Allotype ♀: collected with holotype (WAM T121147, PBI\_OON 23634).

Other material examined. AUSTRALIA: Western Australia: 5 %, 8 \, Hepburn Heights, site HH4, 31.81583°S, 115.77805°E, 25 Sept.–28 Nov. 1995, M. Harvey, J. Waldock (WAM T84869, PBI\_OON 18031); 3 \, 10 \, 13 July-25 Sept. 1995, M. Harvey, J. Waldock (WAM T84870, PBI\_OON 18032).

**Etymology**. The specific name honors Michael Rix, in recognition of his contributions to arachnology.

Diagnosis. Males resemble those of *O. callani* in general body shape, having scuto-pedicel area less than diameter of pedicel, paired scutal ridges not connected at middle and postepigastric scutum with concavity between lateral apodemes, but can be distinguished by bulb with shorter tip and not retrolaterally bulging at height of narrow 'fenestra' (Fig. 138 I). Females can be separated from all other WA species by the scuto-pedicel region being about ¾ of diameter of pedicel, carapace top smooth and sides striated.

Description. Male (PBI\_OON 23623, Figs 138A-J). Total length 1.50. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace ovoid with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.066; PME: 0.070; PLE: 0.055, PME largest, ALE circular, PME oval; posterior eye row recurved from above; ALE separated by less than their radius, ALE-PLE separated by less than ALE radius, PME touching for less than half their length,

PLE-PME separated by less than PME radius. Sternum longer than wide, with weak radial furrows between coxae I-II, II-III, III-IV, furrow with row of small pits, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid, rounded posteriorly; book lung covers large, ovoid; scutopedicel region about diameter of pedicel, paired scutal ridges weak, not connected; postepigastric scutum between lateral apodemes slightly concave. Palpal patella 0.282 long, 0.149 wide, connection to femur at 0.56; bulb ventrally strongly bulging, tip narrow with small prolateral incision, 'fenestra' small (Figs 138H, I).

Female (PBl\_OON 23634). Total length 1.57. Eyes, ALE: 0.073; PME: 0.061; PLE: 0.052, ALE largest. Epigastric area, ventral view, epigastric fold (EF) slightly bowed with triangular middle part and small posterior concavity between lateral apodemes; in dorsal view paddle-like sclerite (PSc) with straight arms bent at 2/3 length, reaching epigastric fold (Fig. 139 I); nail-like process (Na) broad conical; globular appendix (GAp) globular.

**Distribution.** This species is known only from Hepburn Heights in Western Australia.

# Opopaea robusta Baehr & Ott, sp. nov. (Figs 140A-J, 141A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 5 km WSW of Python Pool, 21.34111°S, 117.18833°E, 8 May 2004–12 May 2005, CALM Pilbara Survey (WAM T81872, PBI\_OON 04501). Allotype ♀: collected with holotype (WAM T121121, PBI\_OON 48262).

Other material examined. AUSTRALIA: Western Australia: 1 \$\rightarrow\$, Barrow Island, Chevron Texaco Camp, 20.82861°S, 115.44333°E, 17 May 2005, S. Callan (WAM T84414, PBI\_OON 17776); 1 \$\rightarrow\$, 1 \$\rightarrow\$, 1 \$\rightarrow\$, 1 \$\rightarrow\$, 120.000, 17776); 1 \$\rightarrow\$, 1 \$\rightarrow\$, 1 \$\rightarrow\$, 100.000, 120.000, 2003, R. Teale, G. Harold (WAM T57726, PBI\_OON 23627); 1 \$\rightarrow\$, same data (WAM T121143, PBI\_OON 23626); 1 \$\rightarrow\$, 7 km SE of Marda Pool, 21.06972°S, 116.20666°E, 25 Sept. 2003-3 Oct. 2004, CALM Pilbara Survey (WAM T81871, PBI\_OON 4493); 1 \$\rightarrow\$, 1.2 km SSE of Millstream, 21.60416°S, 117.07750°E, 14 July 2003-12 Oct. 2004, CALM Pilbara Survey (WAM T81869, PBI\_OON 4491); 1 \$\rightarrow\$, 12 km ESE of Mt Billroth, 21.66250°S, 117.70472°E, 5 May 2004-18 May 2005, CALM Pilbara Survey (WAM T121124, PBI\_OON 48265); 1 \$\rightarrow\$, 46 km NNE of Whim Creek Hotel, 20.47555°S, 117.99527°E, 9 July 2003-4 Oct.

2004, CALM Pilbara Survey (WAM T81870, PBI\_OON 4492); 1 ♂, 20 km ENE of Wodgina, 21.11472°S, 118.85166°E, 23 Sept. 2005–13 Sept. 2006, CALM Pilbara Survey (WAM T82150, PBI\_OON 5095).

**Etymology.** The specific name *robusta* is a Latin adjective (feminine) meaning firm or solid, in reference to the well built body shape of this species.

Diagnosis. Males and females resemble none of the WA species but are similar to *O. martini* from New South Wales in having PME largest, a high shouldered carapace and scuto-pedicel region high, about 1 ½ diameter of pedicel, without scutal ridges and pedicel without triangular lateral extensions. Males can be distinguished by the bulb ventrally slightly bulging, tip prolaterally spatulate with striated ridge and small incision, 'fenestra' opposite incision (Fig. 140 I). Females can be separated by the epigastric area in ventral view having epigastric fold (EF) widely triangular with small concavity and two chitinized edges (Figs 141F, G).

Description. Male (PBI\_OON 04501, Figs 140A-J). Total length 1.49. Prosoma, mouthparts and abdominal scutae and legs orange brown. Carapace broadly oval, with strong stout setae, pars cephalica strongly elevated in lateral view, with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin straight, rebordered, without denticles. Eyes, ALE: 0.071; PME: 0.085; PLE: 0.059, PME largest, ALE oval, PME squared; posterior eye row straight from above; ALE touching, ALE-PLE touching, PME touching throughout most of their length, PLE-PME touching. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings. Abdomen globular, pointed posteriorly; book lung covers small, ovoid; scuto-pedicel region high, about 1 1/2 diameter of pedicel, without scutal ridges and pedicel without triangular lateral extensions (Fig. 140G). Palpal patella 0.317 long, 0.164 wide, connection to femur at 0.56; bulb ventrally slightly bulging, tip prolaterally spatulate with striated ridge and small incision, 'fenestra' opposite incision (Figs 140 I-J).

Female (PBI\_OON 48262, Figs 141A-G). Total length 1.78. Eyes, ALE: 0.074; PME: 0.074; PLE: 0.059, ALE, PME subequal, larger than PLE. Epigastric area, ventral view, epigastric fold (EF) widely triangular with small concavity and two chitinized edges; in dorsal view paddle-like sclerite (PSc) with slightly bowed arms bent at 2/3 length, just reaching epigastric fold; nail-like process (Na) broad conical; globular appendix (GAp) globular with tiny narrow extension (Figs 141F, G).

**Distribution.** This species is known from Barrow Island and the Pilbara in Western Australia.

Opopaea rugosa Baehr & Ott, sp. nov. (Figs 142A-J, 143A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: Barrow Island, 1 km W. of Warehouse, 20.72860°S, 115.43220°E, 4 Nov.-3 Dec. 1993, M.S. Harvey, J.M. Waldock (WAM T57552, PBI\_OON 18059). Allotype ♀: collected with holotype (WAM T121142, PBI\_OON 48272).

Other material examined. AUSTRALIA: Western Australia: 1 \( \text{9}\), Barrow Island, old air strip, 20.75000°S, 115.38333°E, 1 May-6 May 2006, S. Callan, R. Graham (WAM T84413, PBI\_OON 17775); 1 \( \frac{1}{2}\), 10 km SSW of Dresser Mining Center, site MBE11, 21.23666°S, 119.40833°E, 12 Oct. 2005–18 Aug. 2006, CALM Pilbara Survey (WAM T121122, PBI\_OON 48263).

Etymology. The specific name *rugosa* is a Latin adjective (feminine) meaning full of wrinkles which refers to the wrinkled body cuticle of this species.

Diagnosis. Males resemble those of *O. julianneae* in general body shape and postepigastric scutum with longitudinal elevated ridge, covered with a line of slim plumose setae between lateral apodemes, but can be easily recognised by the high shouldered carapace, scuto-pedicel region more than diameter of pedicel, paired scutal ridges not connected and bulb ventrally strongly bulging, tip with ventral crest and deep prolateral incision, 'fenestra' large (Figs 142H, I). Females can be separated from all other WA species by the globular appendix (GAp) having a long narrow extension (Fig. 143G).

Description. *Male* (PBI\_OON 18059, Figs 142A–J). Total length 1.44. Prosoma, mouthparts and abdominal scutae orange brown, legs pale orange. Carapace broadly oval, high shouldered

with angular posterolateral corners, surface of elevated portion of pars cephalica granulate, striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.084; PME: 0.070; PLE: 0.054, ALE largest, ALE circular, PME circular; posterior eye row recurved from above; ALE separated by less than their radius, ALE-PLE touching, PME touching for less than half their length, PLE-PME touching. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface rugose, covered with small round pits, microsculpture covering entire surface, lateral margin with infra-coxal grooves and anterior and posterior openings. Abdomen ovoid, pointed posteriorly; book lung covers small, ovoid; scuto-pedicel region more than diameter of pedicel, paired scutal ridges not connected; postepigastric scutum with longitudinal elevated ridge, covered with a line of slim plumose setae between lateral apodemes. Palpal patella 0.281 long, 0.159 wide, connection to femur at 0.53; bulb ventrally strongly bulging, tip with ventral crest and deep prolateral incision, 'fenestra' large (Figs 142 H-J).

Female (PBI\_OON 48272, Figs 143A-G). Total length 1.58. Eyes, ALE: 0.078; PME: 0.066; PLE: 0.059. Epigastric area, ventral view, epigastric fold (EF) widely triangular; in dorsal view paddle-like sclerite (PSc) with slightly bowed arms reaching epigastric fold; nail-like process (Na) broad conical; globular appendix (GAp) globular with long narrow extension (Fig. 143G).

**Distribution.** This species is known from Barrow Island and the Pilbara in Western Australia.

Opopaea subtilis Baehr & Harvey, sp. nov. (Figs 144A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 5.5 km NE of Giles Point, 23.21333°S, 119.20222°E, 30 Aug. 2003–19 Oct. 2004, CALM Pilbara Survey (WAM T82057, PBI\_OON 04022).

Other material examined. AUSTRALIA: Western Australia: 1 3, 5.5 km NE of Giles Point, 23.21333°S, 119.20222°E, 30 Aug. 2003–19 Oct. 2004, CALM Pilbara Survey (WAM T121123, PBI\_OON 48264).

Etymology. The specific name *subtilis* is a Latin adjective (feminine) meaning slender, delicate, referring to the delicate body form of the species.

Diagnosis. Males resemble those of *O. exoculata* in general body shape, having reduced eyes, scuto-pedicel area less than 1/2 diameter of pedicel, paired scutal ridges absent and sternum distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV, but can be distinguished by the short, thin, medially bent bulbal tip without longitudinal ridge (Fig. 144 I).

Description. Male (PBI\_OON 04031, Figs 144A-J). Total length 1.09. Prosoma, mouthparts and abdominal scutae yellow, legs white, palps orange brown. Carapace elongate, pars cephalica flat in lateral view, with rounded posterolateral surface corners. smooth; lateral margin undulate, rebordered, without denticles. Eyes reduced, tiny, ALE: 0.031; PME: 0.035; PLE: 0.022, PME largest, ALE circular, PME circular; posterior eye row recurved from above; ALE separated by more than their diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum longer than wide, without radial furrows between coxae I-II, II-III, III-IV, surface smooth; distance between coxae II and III greater than distance between coxae I and II, and coxae III and IV. Abdomen, book lung covers large, ovoid, darkened; scuto-pedicel region less than 1/2 diameter of pedicel, paired scutal ridges absent, pedicel tube without extensions. Palpal patella 0.230 long, 0.111 wide, connection to femur at 0.50; bulb ventrally slightly bulging, tip with short, thin, medially bent tip, 'fenestra' small (Fig. 144 I).

Female. Unknown.

**Distribution.** This species is known only from Giles Point in the Pilbara, Western Australia.

Opopaea triangularis Baehr & Harvey, sp. nov. (Figs 145A-J, 146A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 11 km ESE of Marda Pool, 21.05555°S, 116.25166°E, 24 Sept. 2003–2 Oct. 2004, CALM Pilbara Survey (WAM T82023, PBI\_OON 04698). Allotype ♀: collected with holotype (WAM T121125, PBI\_OON 23619).

Other material examined. AUSTRALIA: Western Australia: 1 ♂, 21 km WNW of Bonney Downs Homestead, 22.09472°S, 119.75333°E, 7 Aug. 2003–18 Oct. 2004, CALM Pilbara Survey (WAM T121140, PBI\_OON 48271); 2 ♂, 34 km NNW of Cowra Line Camp, site RHNW09, 22.06861°S, 118.97861°E, 26 Aug. 2003–20 Oct. 2004, CALM Pilbara Survey (WAM T82043, PBI\_OON 4718); 1 ♂, 9 km NW of Lake Poongkaliyarra, 20.93972°S, 117.03472°E, 3 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T82033, PBI\_OON 4708); 1 ♂, 11 km ESE of Marda Pool, 21.05555°S, 116.25166°E, 24 Sept. 2003–2 Oct. 2004, CALM Pilbara Survey (WAM T121144, PBI\_OON 23631); 1 ♂, 10 km E of Meentheena Outcamp, 21.24611°S, 120.53888°E, 1 Aug. 2003–13 Oct. 2004, CALM Pilbara Survey (WAM T82027, PBI\_OON 4702); 2 ♂, same data (WAM T82046, PBI\_OON 4722); 1 ♂, 14 km E of Meentheena Outcamp, 21.27138°S, Australia: 1 3, 21 km WNW of Bonney Downs 17. 14 km E of Meentheena Outcamp, 21.27138°S, 120.58500°E, 1 Aug. 2003–13 Oct. 2004, CALM Pilbara Survey (WAM T82026, PBI\_OON 4701); 2 ♂, 32.5 km ESE of Meentheena Outcamp, 21.33361°S, 120.75222°E, 31 July 2003–13 Oct. 2004, CALM Pilbara Survey (WAM T82036, PBI\_OON 4711); 1 ♂, 58 km ESE of Meentheena Outcamp, 21.32194°S, 121.00222°E, 30 July 2003–12 Oct. 2004. CALM Pilbara Survey (WAM T82042, PBI\_OON 4701); 1 ♂, 50 km ESE of Meentheena Outcamp, 21.32194°S, 121.00222°E, 30 July 2003–12 Oct. 2004. CALM Pilbara Survey (WAM T82042, PBI\_OON 4701); 1 ♂, 50 km ESE of Meentheena Outcamp, 21.32194°S, 121.00222°E, 30 July 2003–12 Oct. 2004. CALM Pilbara Survey (WAM T82042, PBI\_OON 4701); 1 ♂, 50 km ESE of Meentheena Outcamp, 21.32194°S, 121.00222°E, 30 July 2003–12 Oct. 2004. 2004, CALM Pilbara Survey (WAM T82042, PBI\_OON 4717); 2 3, 78 km E of Meentheena Outcamp, 21.30416°S, 121.20027°E, 29 July 2003–12 Oct. 2004, CALM Pilbara Survey (WAM T82037, PBI\_OON 4712); 4 &, 4 Q, 83 km E of Meentheena Outcamp, 21.28833°S, 121.23722°E, 29 July 2003–11 Oct. 2004, CALM Pilbara Survey (WAM T82038, PBI OON 4713); 1 &, 1 km SE of Mt Murray, 22.49833°S, 115.55805°E, 29 Sept. 2003–1 Oct. 2004, CALM Pilbara Survey (WAM Sept. 2003–1 Oct. 2004, CALM Pilbara Survey (WAM T82029, PBI\_OON 4704); 1 ♂, 45 km N of Nullagine, 21.47972°S, 120.09055°E, 19 May 2004–18 May 2005, CALM Pilbara Survey (WAM T82032, PBI\_OON 4707); 1 ♂, 11 km SW of Warrawagine Homestead, 20.91694°S, 120.62416°E, 3 July 2005–20 Aug. 2006, CALM Pilbara Survey (WAM T82040, PBI\_OON 4715); 1 ♂, 13 km SSE of Wodgina, 21.27972°S, 118.69888°E, 23 Sept. 2005–14 Sept. 2006, CALM Pilbara Survey (WAM T82039, PBI\_OON 4714); 3 ♂, 4 ♀, 20 km ENE of Wodgina, 21.11472°S, 118.85166°E, 23 Sept. 2005–13 Sept. 2006, CALM Pilbara Survey (WAM T82041, PBI\_OON 4716); 1 ♂, 32.5 km SSE of Wodgina, 21.45833°S, 118.72583°E, 23 Sept. 2005–14 Sept. 2006, CALM Pilbara Survey (WAM T82044, PBI\_OON 4719); 4 ♂, 1 ♀, 8.5 km WSW of Yanyare River Mouth, 20.84277°S, 116.36694°E, 28 Nov. 2003–15 May 2005, CALM Pilbara Survey (WAM T82031, 15 May 2005, CALM Pilbara Survey (WAM T82031, PBI\_OON 4706).

Etymology. The specific name triangularis is a Latin adjective (feminine) meaning with triangle and refers to the triangle between the lateral apodemes of the postepigastric scutum in males.

Diagnosis. Males resemble those of *O. nadineae* in having scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc, an elevated triangle of ridges between lateral apodemes, patella connection to femur

at anterior half and a strong prolateral spine at the bulbal base, but can be distinguished by the elongated and posteriorly rounded abdomen and the narrower more defined triangle of ridges (Fig. 145C). In females the epigynal fold (EF) posterior margin is widely triangular with tiny knob (Fig. 146F).

Description. Male (PBI\_OON 04698, Figs 145A-J). Total length 1.33. Prosoma, mouthparts and abdominal scutae orange brown, legs pale orange. Carapace with angular posterolateral corners, surface of elevated portion of pars cephalica smooth, sides striated; lateral margin rebordered, with blunt denticles. Eyes, ALE: 0.068; PME: 0.069; PLE: 0.055, PME largest, ALE circular, PME squared; posterior eye row recurved from above; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching throughout most of their length, PLE-PME touching. Abdomen elongated, rounded posteriorly; book lung covers small, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc; anterior margin of postepigastric scutum with well defined, elevated triangle of ridges. Palpal patella 0.297 long, 0.156 wide, connection to femur at 0.55; bulb ventrally strongly bulging with strong prolateral spine, tip spatulate with deep prolateral incision, 'fenestra' small (Figs 145 H-J).

Female (PBI\_OON 23619, Figs 146A-G). Total length 1.61. Eyes, ALE: 0.066; PME: 0.062; PLE: 0.044. Epigastric area, ventral view, epigastric fold (EF) posterior margin widely triangular with tiny knob; in dorsal view paddle-like sclerite (PSc) with straight arms, bent at 2/3 length, reaching beyond epigastric fold; nail-like process (Na) short conical; globular appendix (GAp) hood-shaped (Fig. 146G).

**Distribution.** This species is known only from the Pilbara in Western Australia.

Opopaea wheelarra Baehr & Ott, sp. nov. (Figs 147A-J, 148A-G)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 33.5 km E of Wheelarra, 23.37250°S, 120.45805°E, 4 Sept. 2005–11 Aug. 2006, CALM Pilbara Survey (WAM T81859, PBI\_OON 04471). Allotype

♀: collected with holotype (WAM T81859, PBI\_OON 04471).

Other material examined. AUSTRALIA: Western Australia: 1 &, 19.7 km WNW of Mt Berry, 22.43750°S, 116.27416°E, 8 Sept. 2003–10 Oct. 2004, CALM Pilbara Survey (WAM T82144, PBI\_OON 5089); same data, 1 & (WAM T82146, PBI\_OON 5091); 2 &, 5 km WSW of Python Pool, 21.34111°S, 117.18833°E, 8 May 2004–12 May 2005, CALM Pilbara Survey (WAM T82153, PBI\_OON 5098); 32 &, 14 Q, 33.5 km E of Wheelarra, 23.37250°S, 120.45805°E, 4 Sept. 2005–11 Aug. 2006, CALM Pilbara Survey (WAM T81859, PBI\_OON 4471).

**Etymology.** The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of O. pilbara in general body shape and in having scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc, area between anterior and posterior spiracles slightly concave and dotted but no setae, but can be recognised by the larger eyes, sternum with posterior notch, anterior area of notch covered with small pits, palpal patella connection to femur at 0.61; bulb slender, ventrally slightly bulging, tip prolaterally incised, spatulate, bent medially with striated ridge, 'fenestra' larger, distal from incision (Fig. 147 I). In females the epigynal fold (EF) anterior margin is straight with small knob; posterior margin with two small sclerotized edges.

Description. Male (PBI\_OON 04471, Figs 147 A -J). Total length 1.84. Prosoma, mouthparts, palpal patella and abdominal scutae orange brown, legs pale orange. Carapace broadly oval, pars cephalica slightly elevated in lateral view, with rounded posterolateral corners, surface of elevated portion of pars cephalica smooth, sides strongly reticulate; lateral margin straight, rebordered, with blunt denticles. Eyes, ALE: 0.085; PME: 0.085; PLE: 0.063, ALE, PME subequal, larger than PLE, ALE circular, PME squared; posterior eye row recurved from above; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME touching for less than half their length, PLE-PME touching. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth, lateral margin with infra-coxal grooves and anterior and posterior openings, with posterior notch, anterior area of notch covered with small pits. Abdomen globular, rounded posteriorly; book lung covers large, ovoid; scuto-pedicel region about diameter of pedicel, paired scutal ridges connected by arc, plumose setae lateral of pedicel; postepigastric scutum between anterior and posterior spiracles slightly concave and dotted but no setae. Palpal patella 0.373 long, 0.188 wide, connection to femur at 0.61; bulb ventrally slightly bulging, tip prolaterally incised, spatulate, bent medially with striated ridge, 'fenestra' large, distal from incision (Fig. 147H–J).

Female (PBI\_OON 4471, Figs 148A-G). Total length 1.86. Eyes, ALE: 0.091; PME: 0.086; PLE: 0.063; ALE largest. Epigastric area, ventral view, epigastric fold (EF) anterior margin straight with small knob; posterior margin with two small sclerotized edges; in dorsal view paddle-like sclerite (PSc) with straight arms, bent at 2/3 length, reaching beyond epigastric fold (Fig. 148G); nail-like process (Na) short conical; globular appendix (GAp) hood-shaped with drop-shaped extension.

**Distribution.** This species is known only from the Pilbara in Western Australia.

Opopaea whim Baehr & Harvey, sp. nov. (Figs 149A-J)

Material examined. Holotype ♂: AUSTRALIA: Western Australia: 11 km SSE of Whim Creek Hotel, 20.91972°S, 117.86111°E, 11 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T81986, PBI\_OON 4658).

Other material examined. AUSTRALIA: Western Australia: 9 %, 5 \$\mathbb{Q}\$, 10 km S of Mallina Homestead, 20.96944°S, 118.04833°E, 11 July 2003–3 Oct. 2004, CALM Pilbara Survey (WAM T81937, PBI\_OON 4631); 1 \$\mathref{Q}\$, 32 km E of Port Hedland, 20.32444°S, 118.92222°E, 25 July 2005–25 Aug. 2006, CALM Pilbara Survey (WAM T81970, PBI\_OON 4639).

Etymology. The specific name is a noun in apposition taken from the type locality.

Diagnosis. Males resemble those of *O. cowra* in general body shape, having a finely reticulated carapace, scuto-pedicel region less than diameter of pedicel, paired scutal ridges short, not connected, patella connection to femur at anterior half and the broad complex folded bulbal tip, but can be distinguished by

the absence of any prolateral extension at the middle of the bulb (Figs 149H, I).

Description. Male (PBI\_OON 04658, Figs 149A-J). Total length 1.35. Prosoma, mouthparts and abdominal scutae pale orange, palpal patella orange brown, legs yellow. Carapace ovoid, pars cephalica slightly elevated in lateral view, with rounded posterolateral corners, surface finely reticulate; lateral margin straight, rebordered, without denticles. Eyes, ALE: 0.061; PME: 0.061; PLE: 0.053, ALE, PME subequal, larger than PLE, ALE oval, PME oval; posterior eye row recurved from above; ALE separated by their radius to diameter, ALE-PLE separated by less than ALE radius, PME separated by less than their radius, PLE-PME separated by less than PME radius. Sternum as long as wide, with radial furrows between coxae I-II, II-III, III-IV, furrow with rows of small pits, surface smooth. Abdomen ovoid; book lung covers small, ovoid; scuto-pedicel region about ¾ of diameter of pedicel, with weak paired scutal ridges, not connected. Palpal patella 0.248 long, 0.126 wide, connection to femur at 0.55; bulb ventrally slightly bulging, with small prolateral folds close to tip, tip broad with long prolateral ribbed fold bent dorsally, 'fenestra' close to tip (Figs 149 H-J).

Female. Unknown.

Distribution. This species is known only from the Pilbara in Western Australia.

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FIG. 1. Colourpainting of *Opopaea ulrichi* frontal view; male palp, retrolateral view.

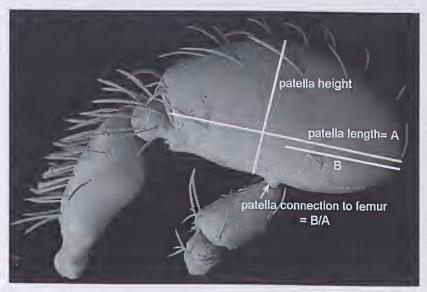


FIG. 2. Scanning electron microscope image of Opopaea, left palp explaining measurements.

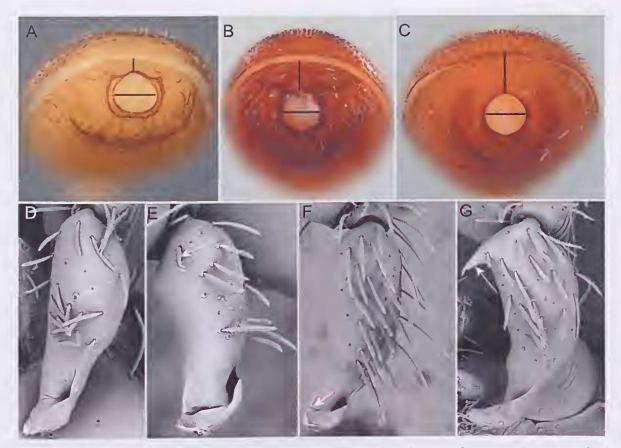


FIG. 3. A-C, *Opopaea* opisthosoma, frontal view. D-G, *Opopaea* palps, showing characters: **A**, scuto-pedicel region about ½ of diameter of pedicel; **B**, scuto-pedicel region about diameter of pedicel; **C**, scuto-pedicel region about 1½ diameter of pedicel; **D**, arrow: tarsal organ; **E**, arrow: bulbal base with 2 strong prolateral spines; **F**, arrow: prolateral incision at tip; **G**, arrow: prolateral spur.

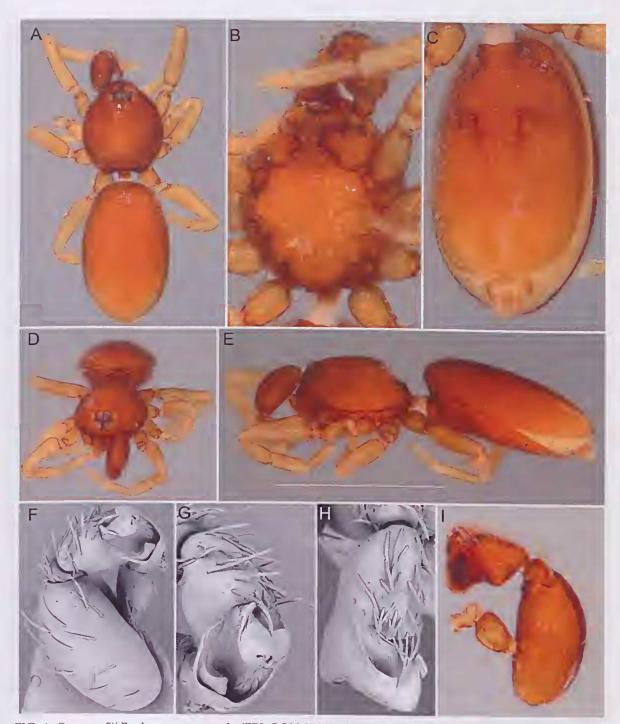


FIG. 4. Opopaea fiji Baehr, sp. nov., male (PBI\_OON 27962 photo, PBI\_OON 22581 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, male palp, prolateral view; G, same, anterior view; H, same, dorsal view; I, same, retrolateral view.

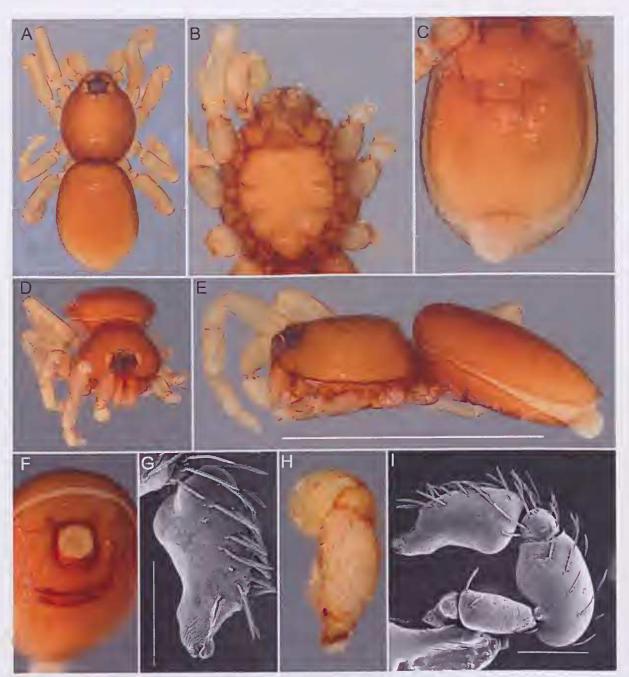


FIG. 5. Opopaea foveolata Roewer, 1963, male (PBI\_OON 22620 photo, PBI\_OON 27961 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, opisthosoma, anterior view; G, male palp, prolateral view; H, same, dorsal view; I, same, retrolateral view.

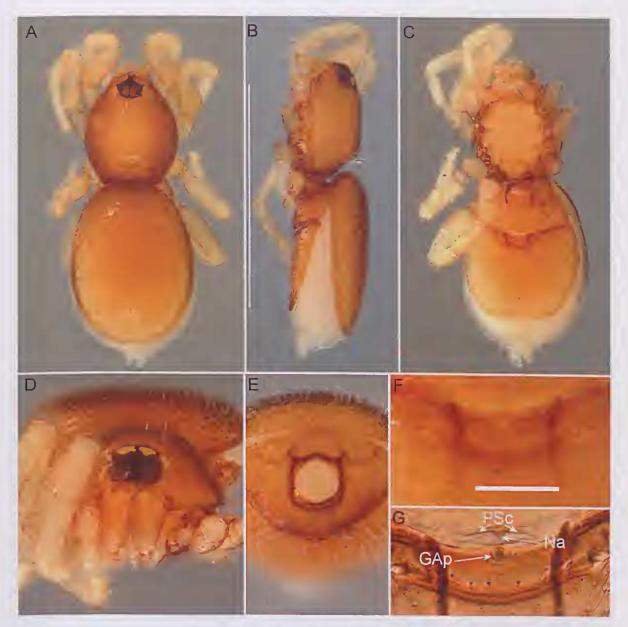


FIG. 6. Opopaea foveolata Roewer, 1963, female (PBI\_OON 07398): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view (PBI\_OON 27958). PSc, t-shaped or paddle like sclerite; Na, nail-like process, situated near genital opening with fitting into posterior situated globular appendix; GAp, globular appendix.

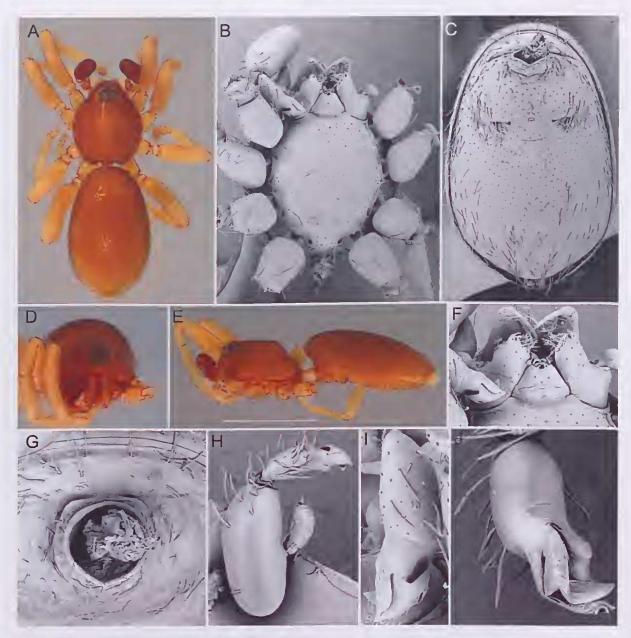


FIG. 7. Opopaea hawaii Baehr, sp. nov., male (PBI\_OON 00207 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 8. Opopaea palau Baehr, sp. nov., male (PBI\_OON 27965 photo, PBI\_OON 10848 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

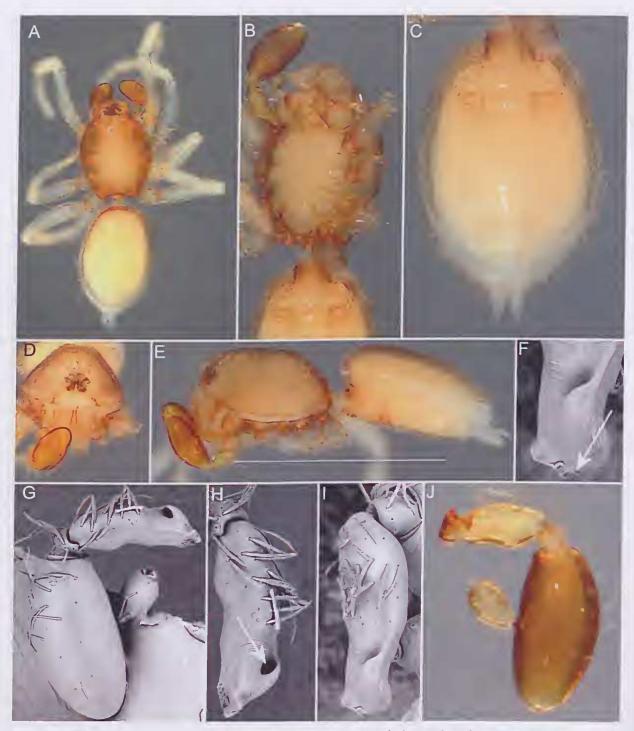


FIG. 9. Opopaea antieu Baehr, sp. nov., male (PBI\_OON 22622ps): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, bulbal tip, dorsal view; G, male palp, prolateral view; H, male bulb, prolateral view; I, same, dorsal view; J, male palp, retrolateral view.

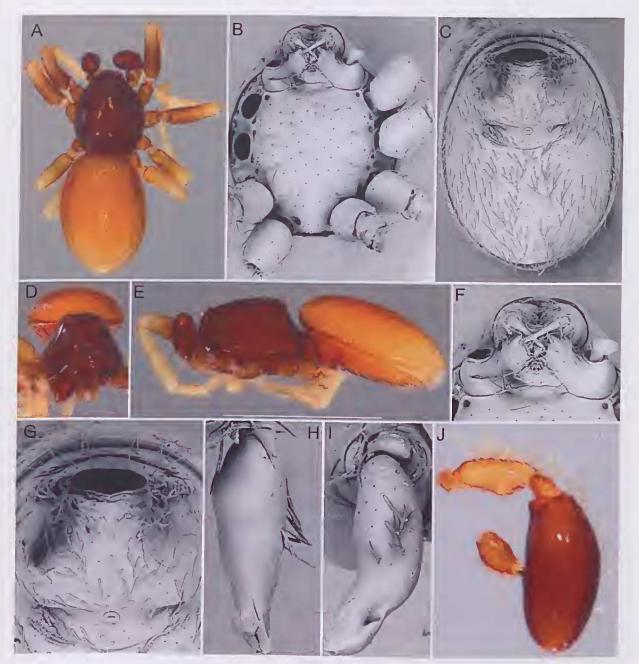


FIG. 10. *Opopaca bicolor* Baehr, sp. nov., male (PBI\_OON 22621 photo, PBI\_OON 23436 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.



FIG. 11. *Opopaea bicolor* Baehr, sp. nov., female (PBI\_OON 23435): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

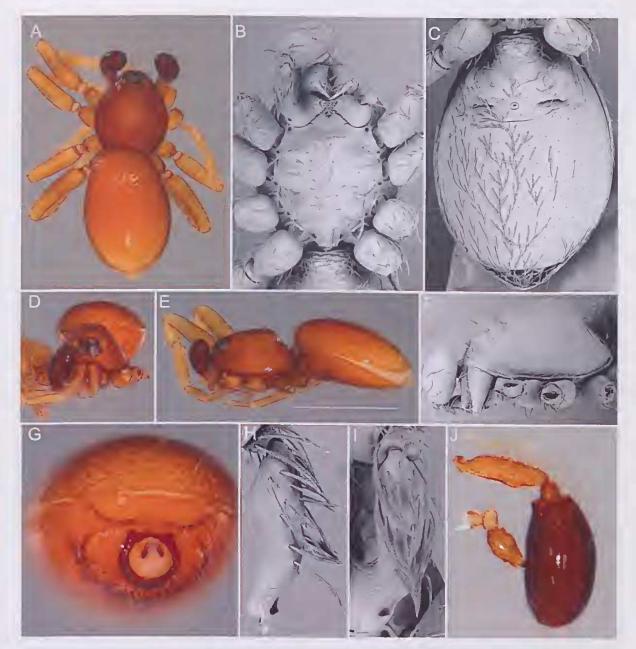


FIG. 12. *Opopaea burwelli* Baehr, sp. nov., male (PBI\_OON 22591 photo, PBI\_OON 23425 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, prosoma, lateral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

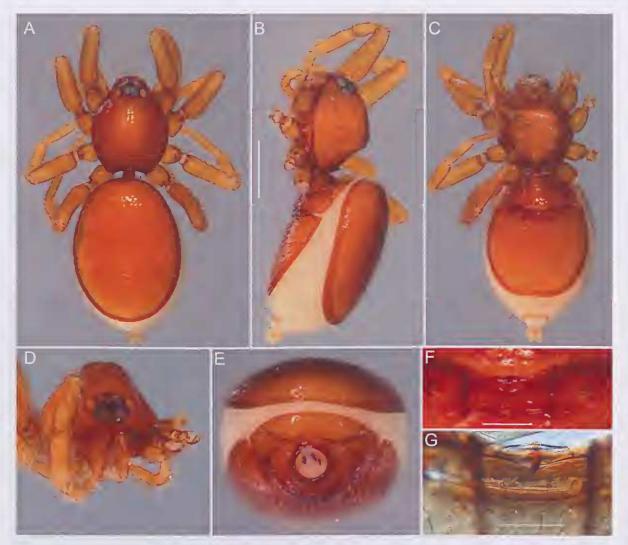


FIG. 13. Opopaea burwelli Baehr, sp. nov., female (PBI\_OON 23424): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

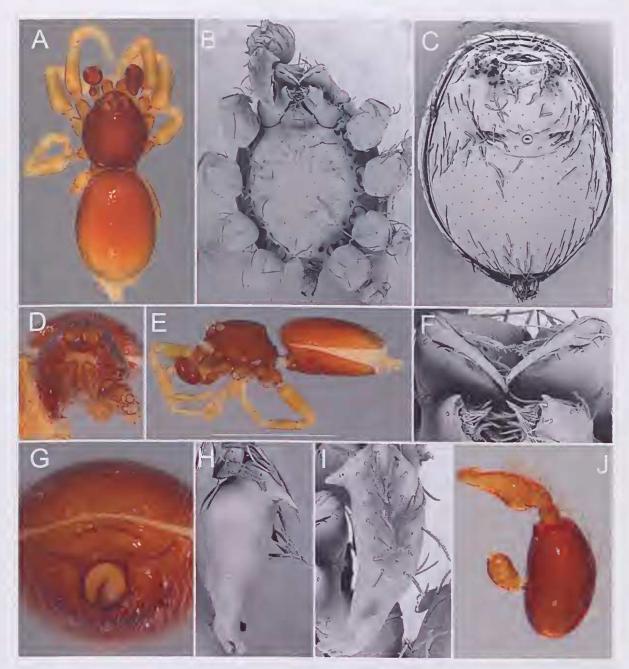


FIG. 14. *Opopaea calcaris* Baehr, sp. nov., male (PBI\_OON 22617 photo, PBI\_OON 22581 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **J**, same, dorsal view; **J**, same, retrolateral view.

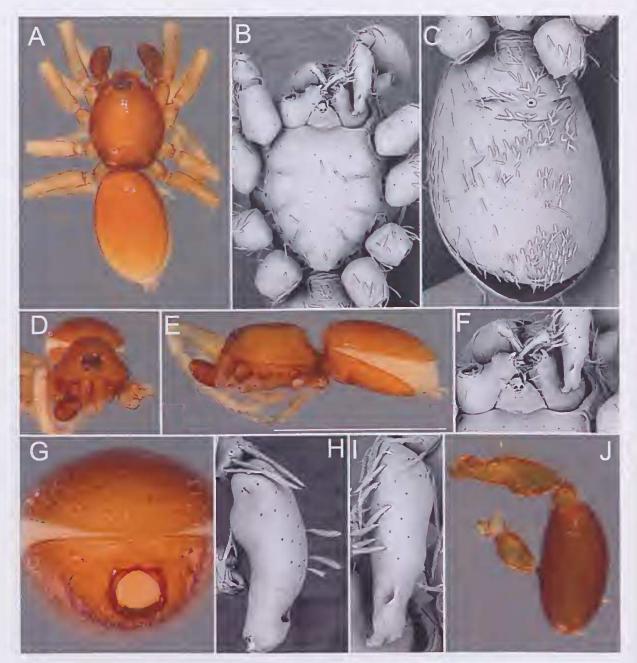


FIG. 15. Opopaea goloboffi Baehr, sp. nov., male (PBI\_OON 23426 photo, PBI\_OON 00213 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

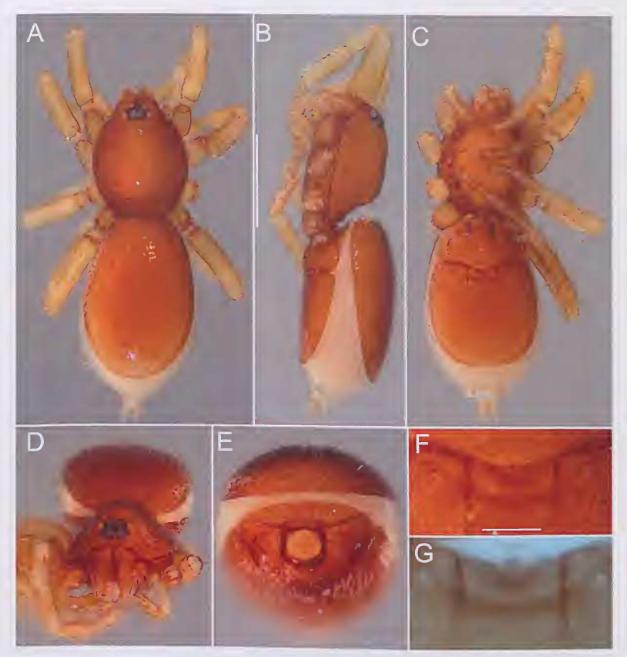


FIG. 16. Opopaca goloboffi Baehr, sp. nov., female (PBI\_OON 22635): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

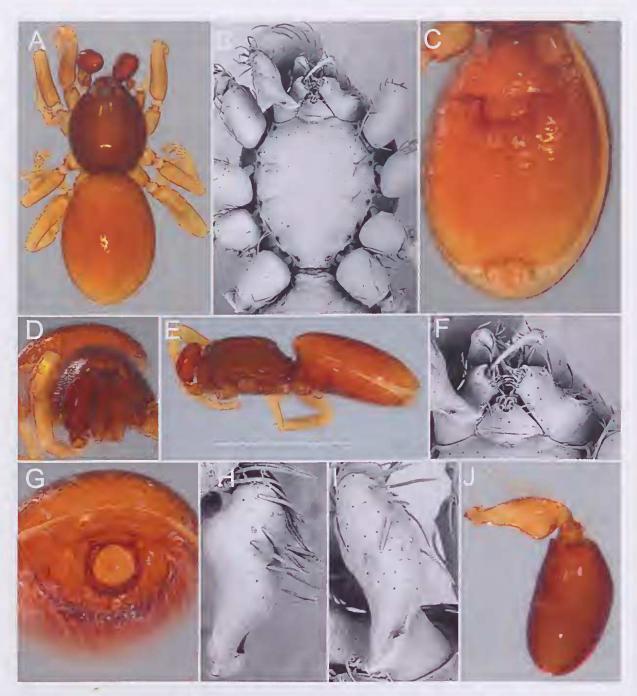


FIG. 17. *Opopaea monteithi* Baehr, sp. nov., male (PBI\_OON 22640 photo, PBI\_OON 22630 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

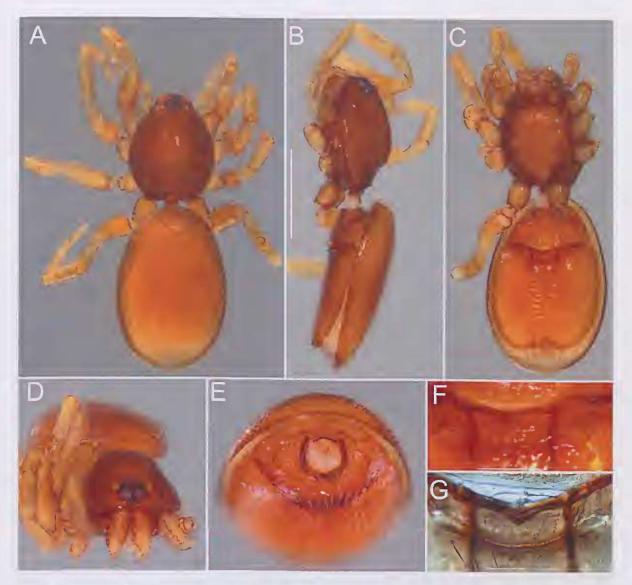


FIG. 18. Opopaea monteithi Baehr, sp. nov., female (PBI\_OON 23429): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

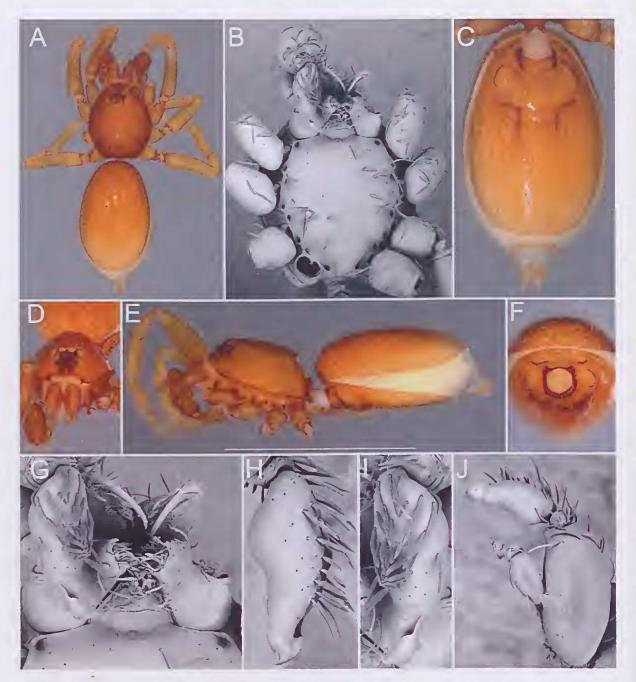


FIG. 19. *Opopaea udoua* Baehr, sp. nov., male (PBI\_OON 22572 photo, PBI\_OON 22653 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, opisthosoma, anterior view; G, mouthparts, ventral view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

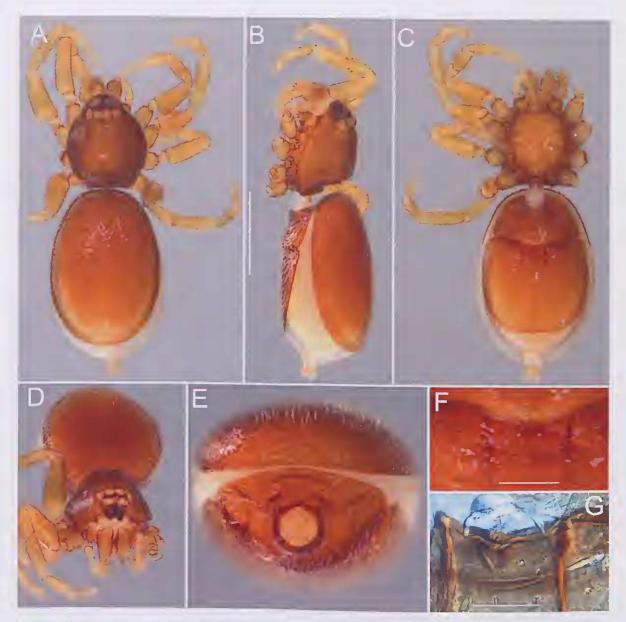


FIG. 20. Opopaea ndoua Baehr, sp. nov., female (PBI\_OON 23449): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

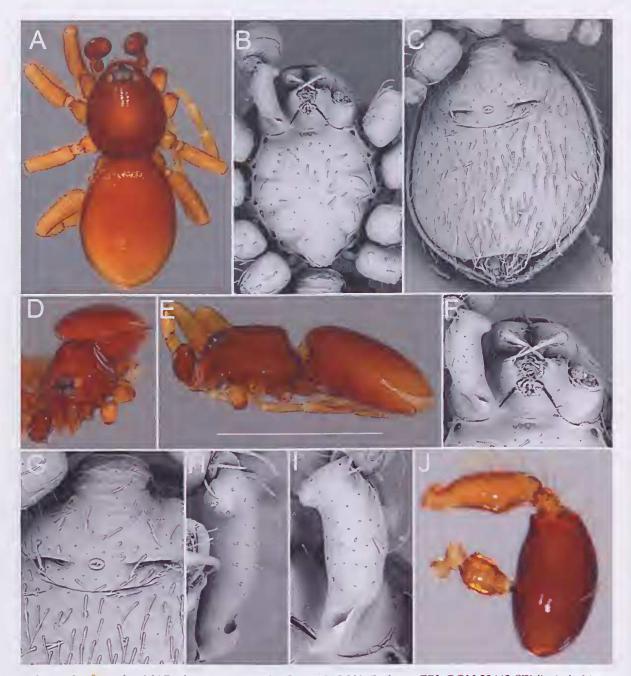


FIG. 21. *Opopaea platnicki* Baehr, sp. nov., male (PBI\_OON 00215 photo, PBI\_OON 23443 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, Sperm pore, ventral view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

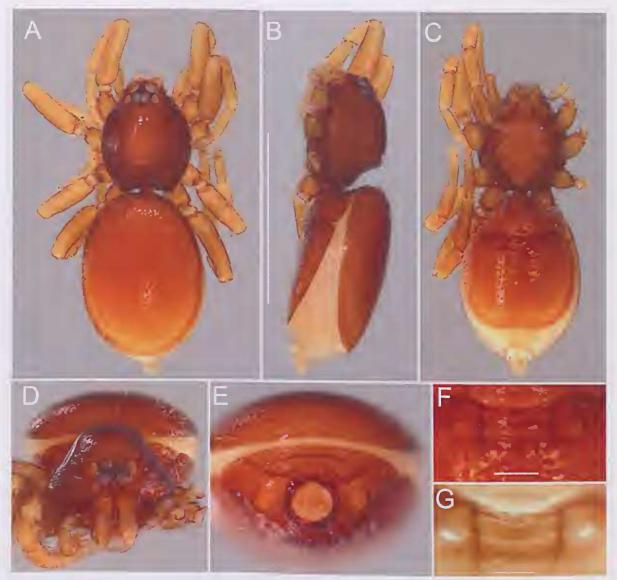


FIG. 22. *Opopaea platnicki* Baehr, sp. nov., female (PBI\_OON 23443): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

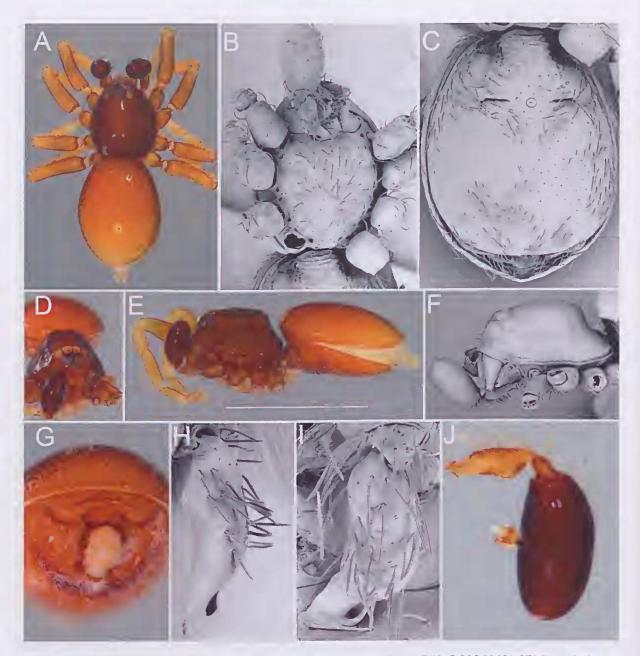


FIG. 23. *Opopaea raveni* Baehr, sp. nov., male (PBI\_OON 22656 photo, PBI\_OON 22601 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, lateral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

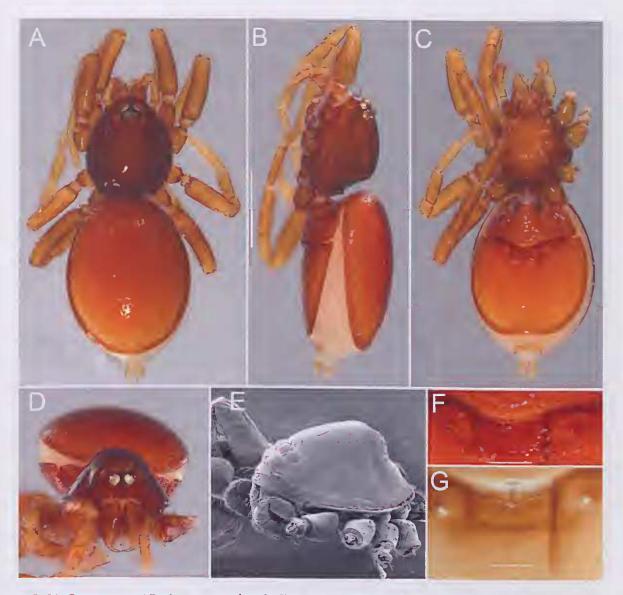


FIG. 24. *Opopaea raveni* Baehr, sp. nov., female (PBI\_OON 22595): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, prosoma, lateral view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

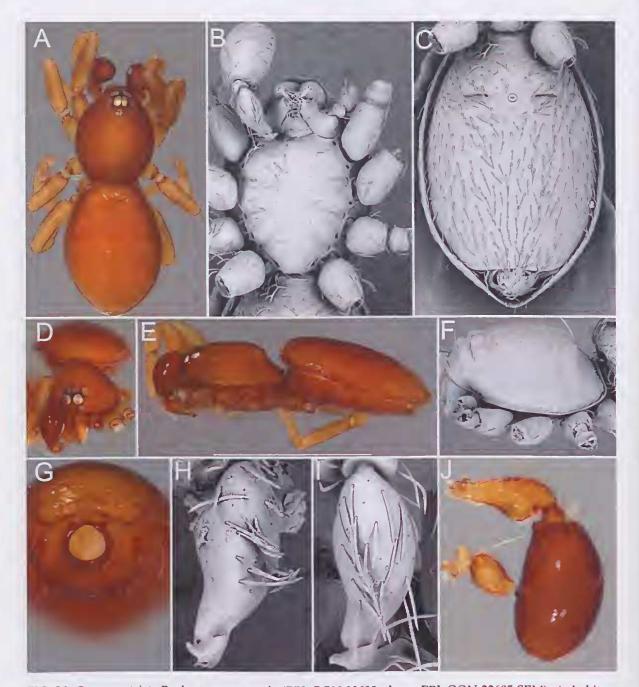


FIG. 25. Opopaea striata Baehr, sp. nov., male (PBI\_OON 22632 photo, PBI\_OON 22605 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, lateral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

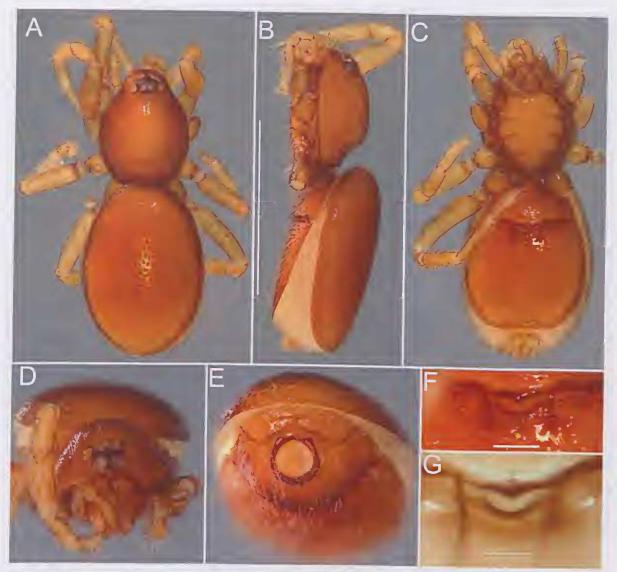


FIG. 26. Opopaea striata Baehr, sp. nov., female (PBI\_OON 23427): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.



FIG. 27. Opopaea touho Baehr, sp. nov., male (PBl\_OON 22663 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, opisthosoma, anterior view; G, male palp, prolateral view; H, same, dorsal view; I, palpal tip, dorsal view; J, Palp, retrolateral view.

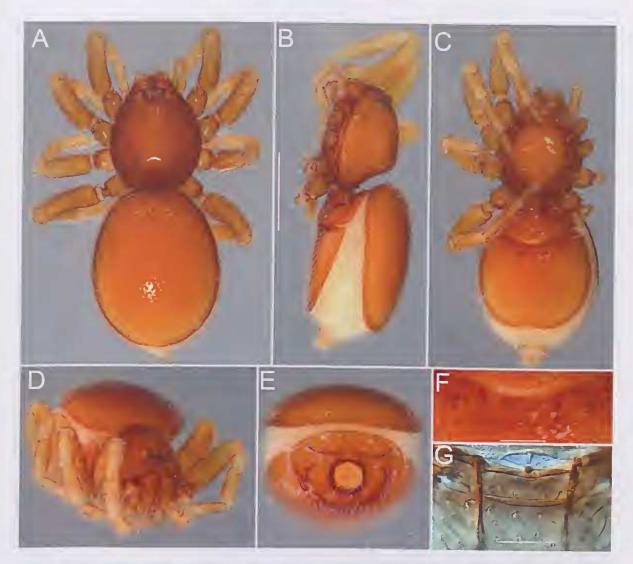


FIG. 28. Opopaea toulio Baehr, sp. nov., female (PBI\_OON 23428): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

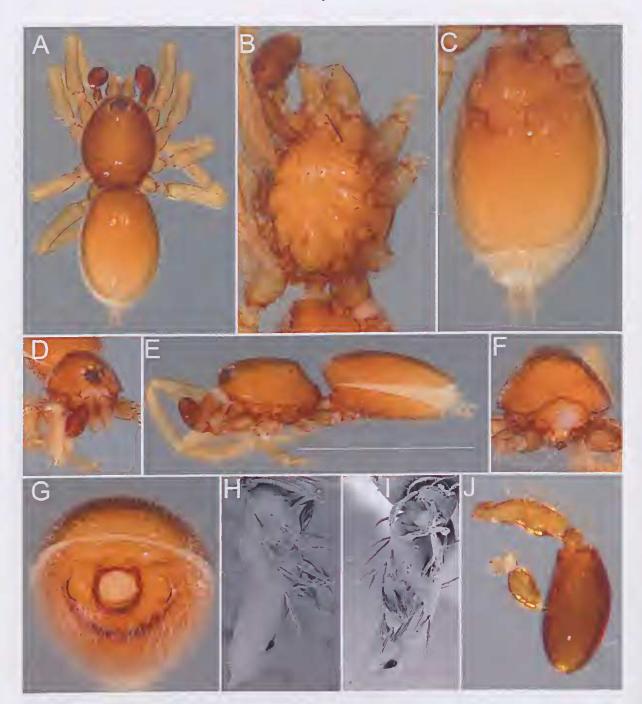


FIG. 29. *Opopaea tuberculata* Baehr, sp. nov., male (PBI\_OON 22651 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

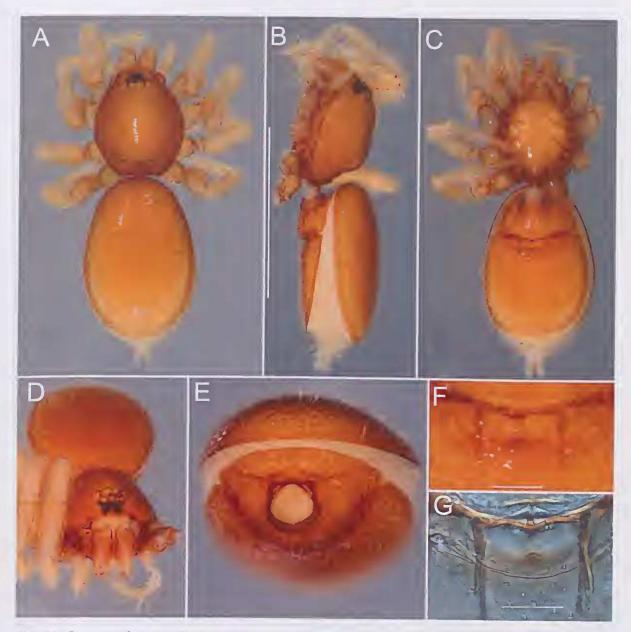


FIG. 30. Opopaea tuberculata Baehr, sp. nov., female (PBI\_OON 23483): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

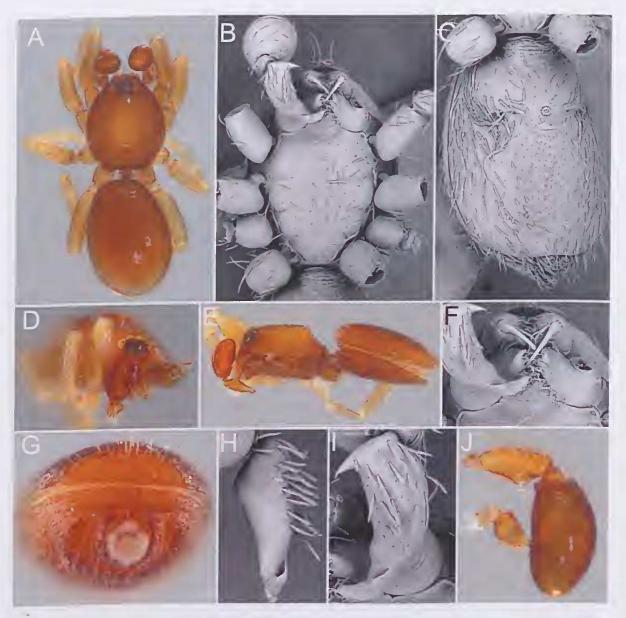


FIG. 31. Opopaea acuminata Baehr, sp. nov., male (PBI\_OON 20477 photo, PBI\_OON 20485 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 32. Opopaea acuminata Baehr, sp. nov., female (PBI\_OON 20484): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

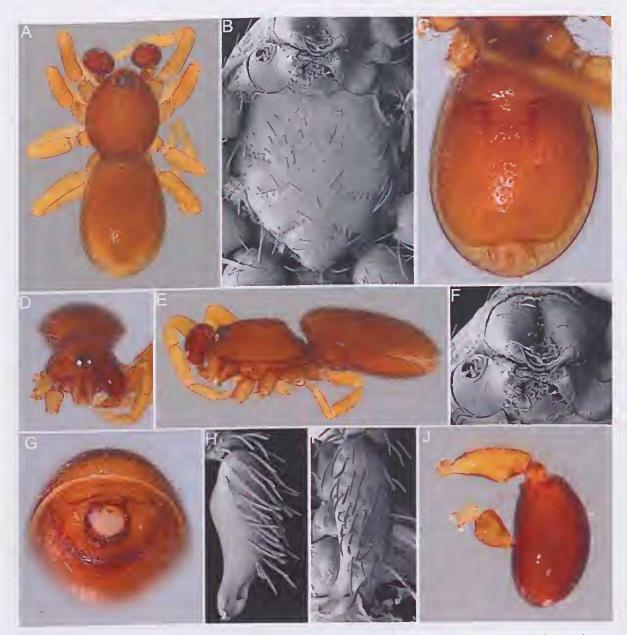


FIG. 33. Opopaea addsae Baehr and Smith, sp. nov., male (PBI\_OON 07704 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

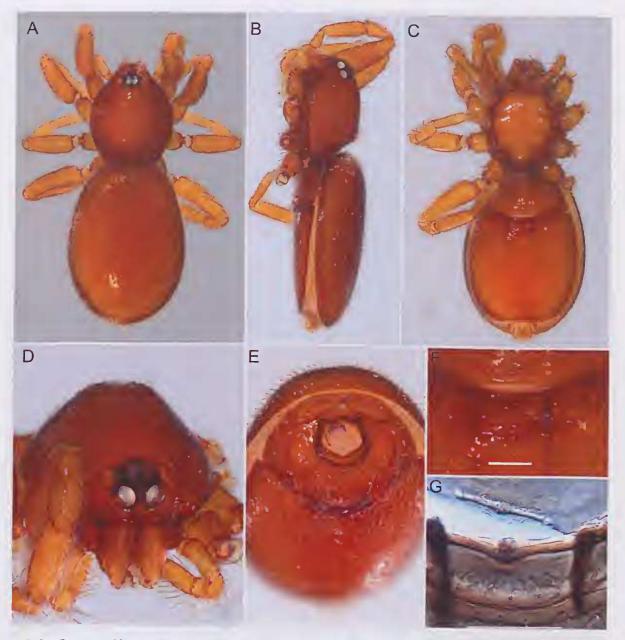


FIG. 34. Opopaca addsac Baehr and Smith, sp. nov., female (PBl\_OON 20484): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view

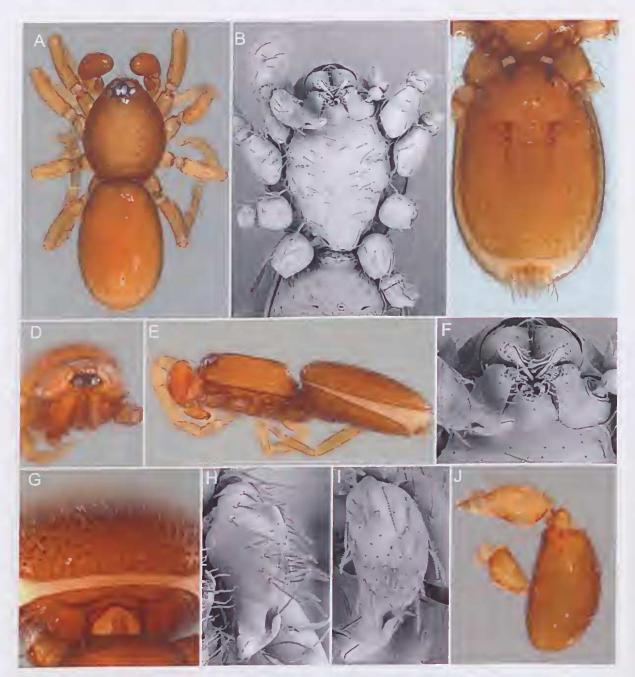


FIG. 35. Opopaea bushblitz Baehr, sp. nov., male (PBI\_OON 23527 photo, PBI\_OON 23529 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

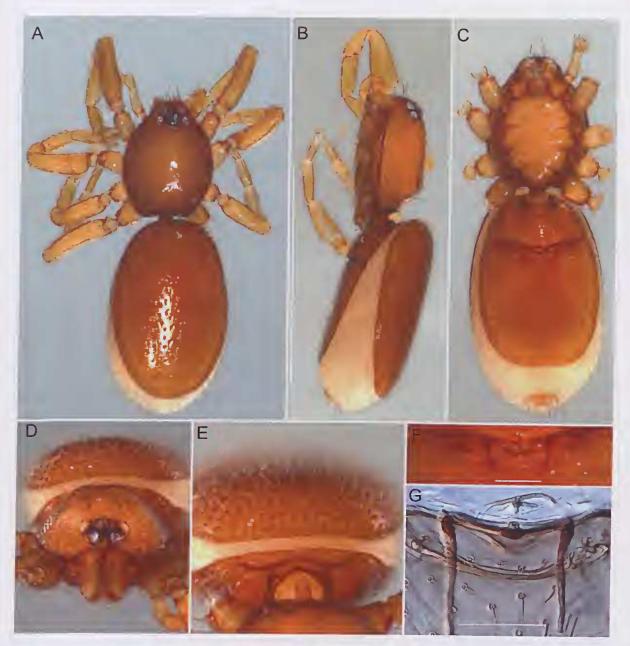


FIG. 36. Opopaea bushblitz Baehr, sp. nov., female (PBI\_OON 23528): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view

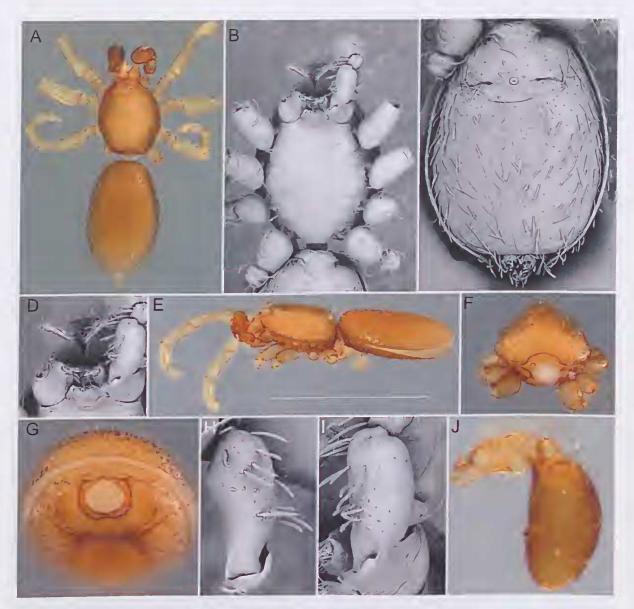


FIG. 37. Opopaea gerstmeieri Baehr, sp. nov., male (PBI\_OON 23608 photo, PBI\_OON 07618 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, mouthparts, ventral view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 38. Opopaea gerstmeieri Baehr, sp. nov., female (PBI\_OON 07528): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

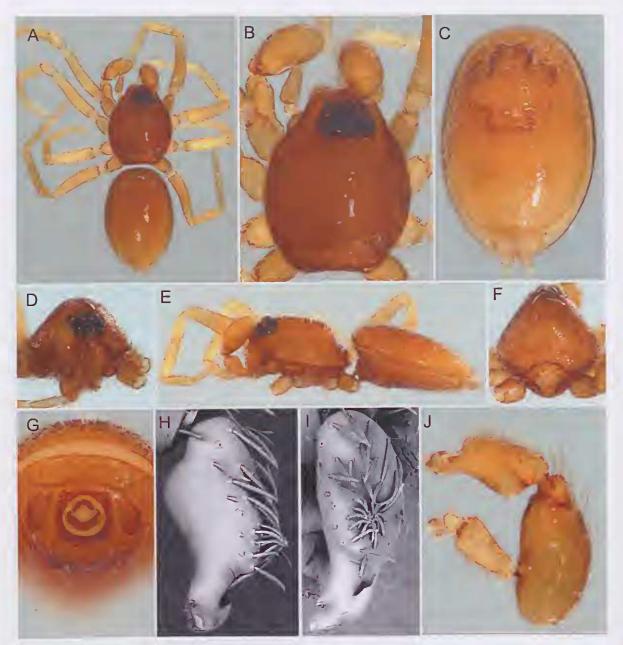


FIG. 39. *Opopaea lebretoni* Baehr, sp. nov., male (PBI\_OON 20474 photo, SEM): A, habitus, dorsal view; B, prosoma, dorsal view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

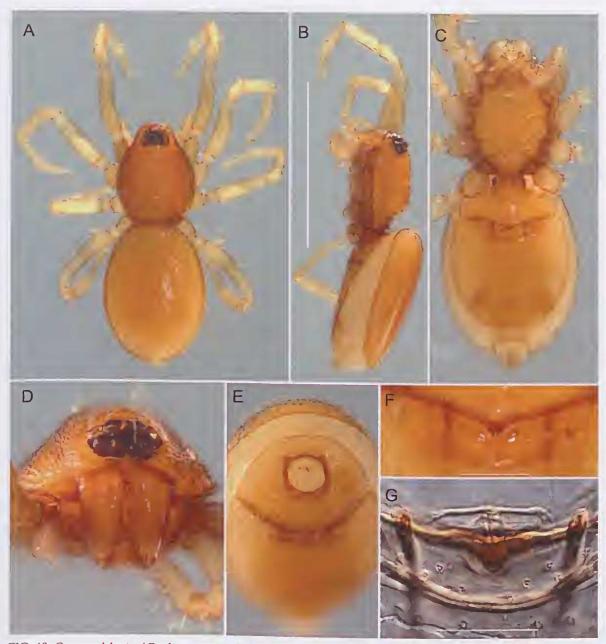


FIG. 40. Opopaea lebretoni Baehr, sp. nov., female (PBI\_OON 07596): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

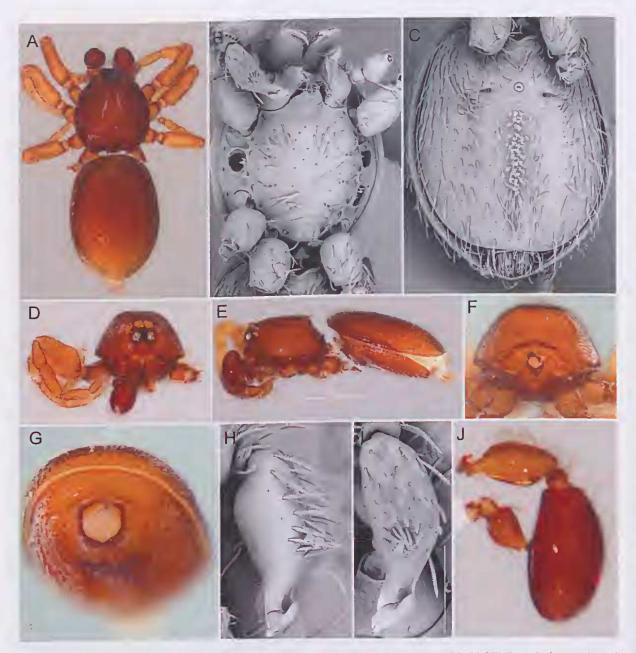


FIG. 41. *Opopaea linea* Baehr, sp. nov., male (PBI\_OON 23459 photo, PBI\_OON 20192 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, prosoma, posterior view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

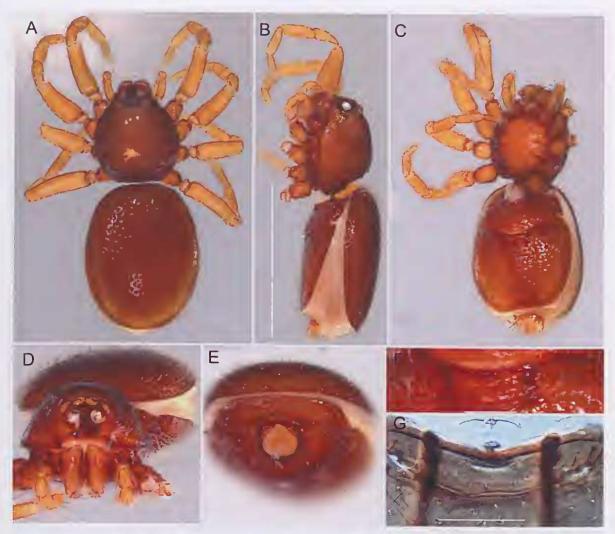


FIG. 42. Opopaea linea Baehr, sp. nov., female (PBI\_OON 23460): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view

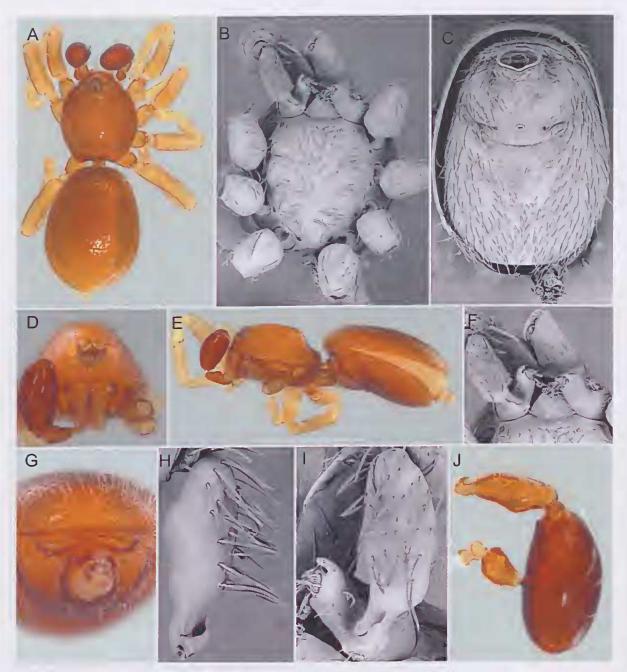


FIG. 43. *Opopaea magna* Baehr, sp. nov., male (PBI\_OON 07514 photo, PBI\_OON 20145 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.



FIG. 44. Opopaea magna Baehr, sp. nov., female (PBI\_OON 20569): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view

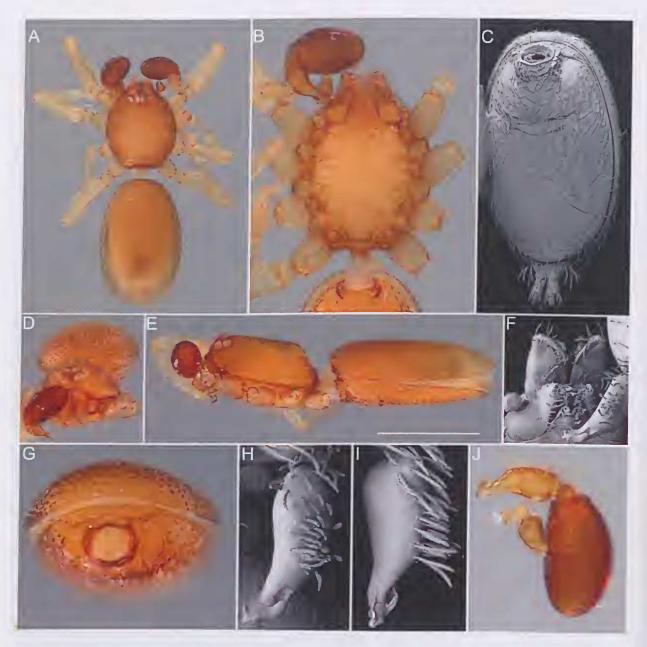


FIG. 45. *Opopaea margaretehoffmannae* Baehr, sp. nov., male (PBl\_OON 20188 photo, PBl\_OON 20208 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

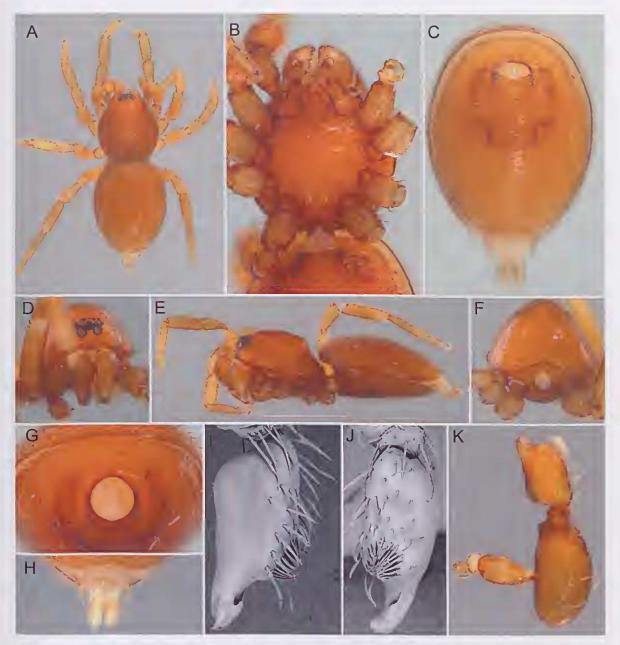


FIG. 46. *Opopaea martini* Baehr, sp. nov., male (PBI\_OON 20576 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, spinnerets, ventral view; I, male palp, prolateral view; J, same, dorsal view; K, same, retrolateral view.



FIG. 47. *Opopaea martini* Baehr, sp. nov., female (PBI\_OON 07628): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

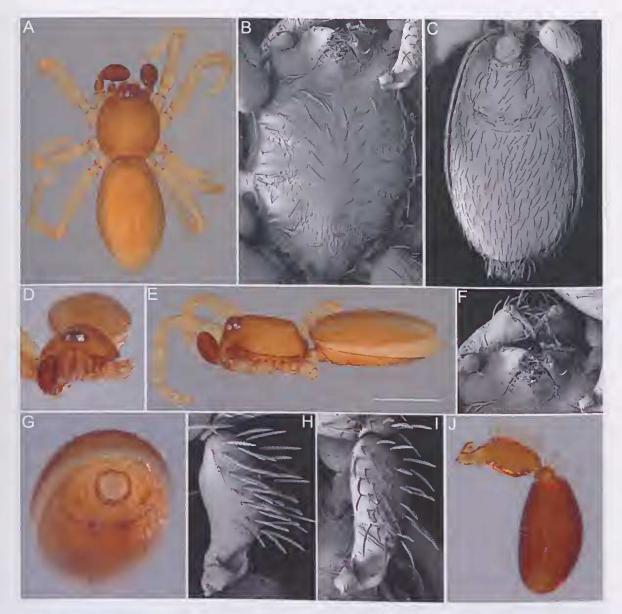


FIG. 48. *Opopaea michaeli* Baehr and Smith, sp. nov., male (PBI\_OON 20204 photo, PBI\_OON 20207 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

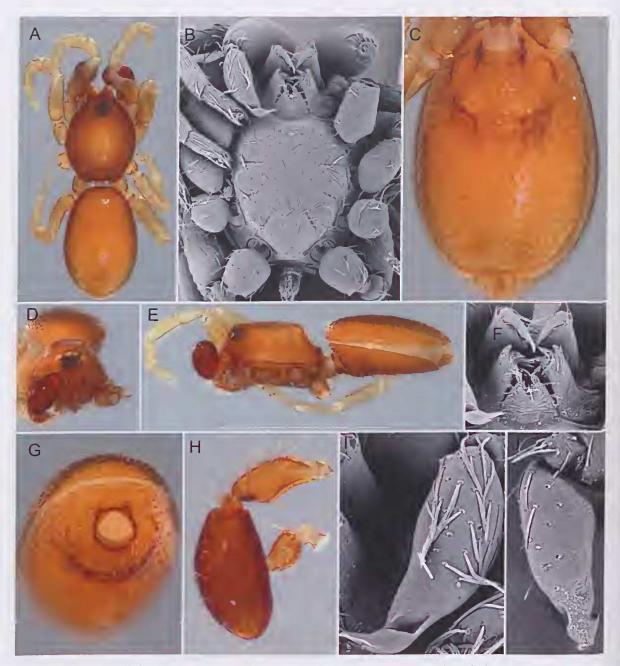


FIG. 49. *Opopaea milledgei* Baehr, sp. nov., male (PBI\_OON 20478 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

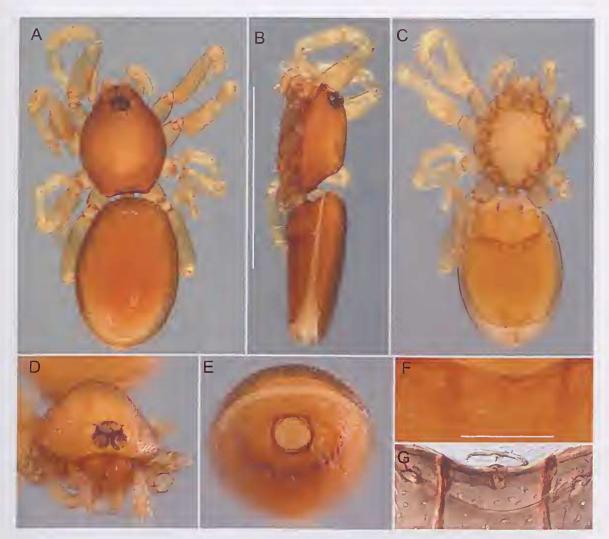


FIG. 50. Opopaea milledgei Baehr, sp. nov., female (PBI\_OON 23604): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view (PBI\_OON 19364).

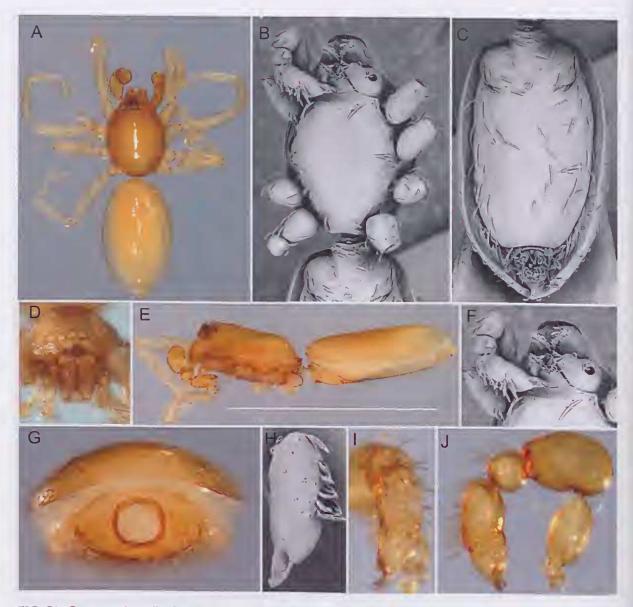


FIG. 51. *Opopaea niteus* Baehr, sp. nov., male (PBI\_OON 21190 photo, PBI\_OON 07763 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

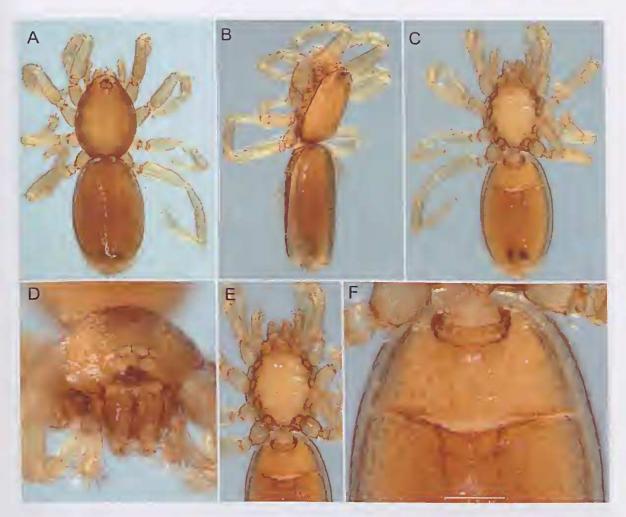


FIG. 52. *Opopaea nitens* Baehr, sp. nov., female (PBI\_OON 07737): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, prosoma, ventral view; F, female epigyne, ventral view.

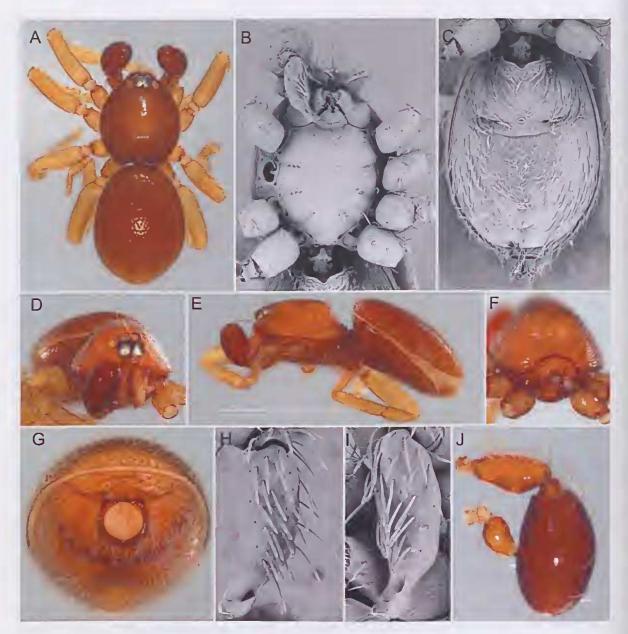


FIG. 53. Opopaea ottoi Baehr, sp. nov., male (PBI\_OON 19282 photo, PBI\_OON 19227 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

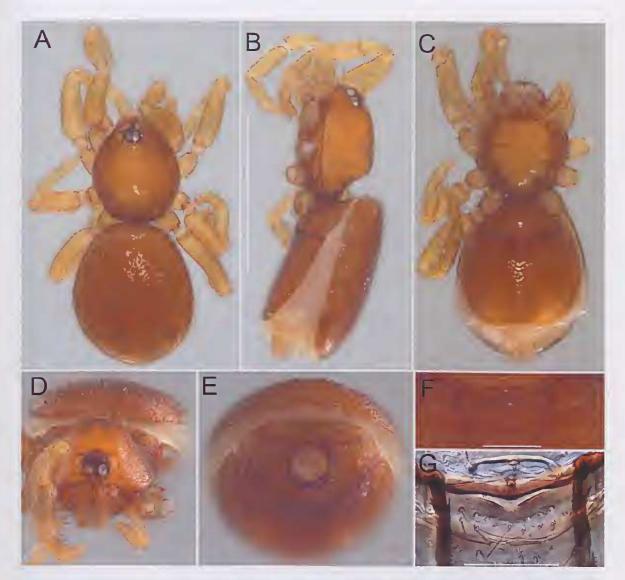


FIG. 54. Opopaea ottoi Baehr, sp. nov., female (PBI\_OON 23606): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

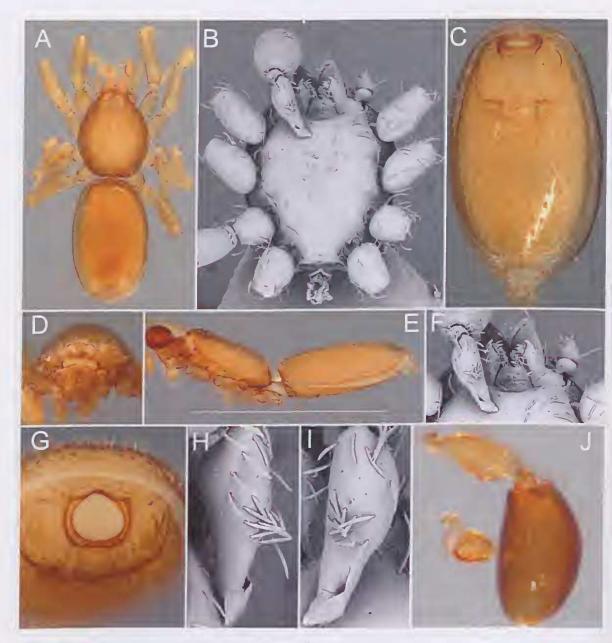


FIG. 55. *Opopaea plana* Baehr, sp. nov., male (PBI\_OON 19575 photo, PBI\_OON 19579 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

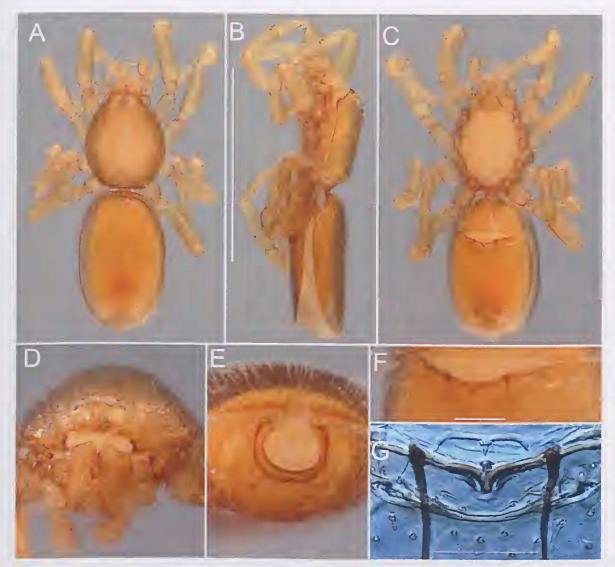


FIG. 56. Opopaca plana Baehr, sp. nov., female (PBI\_OON 19577): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

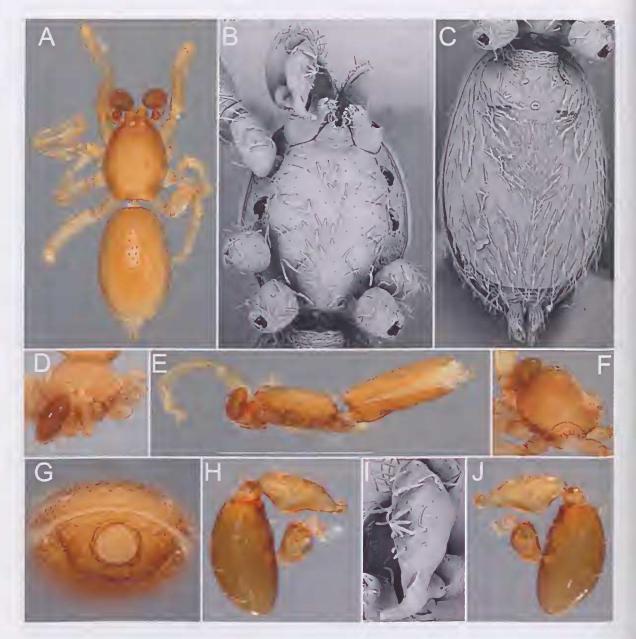


FIG. 57. Opopaca simplex Baehr, sp. nov., male (PBI\_OON 19589 photo, PBI\_OON 19562 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

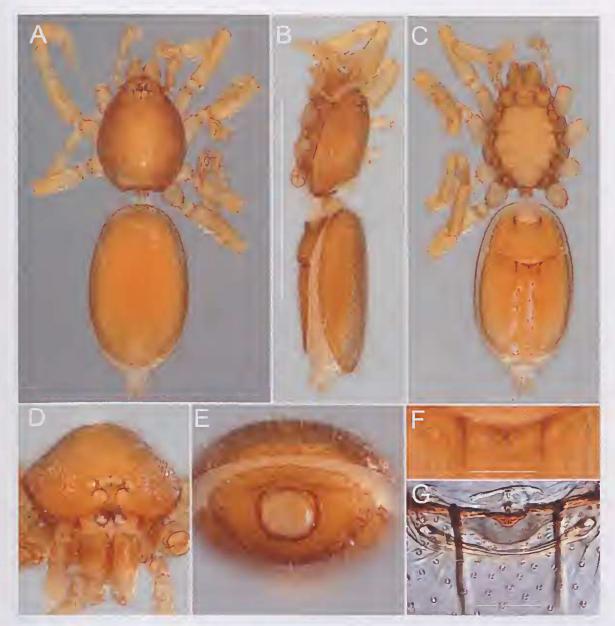


FIG. 58. Opopaea simplex Baehr, sp. nov., female (PBI\_OON 19560): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

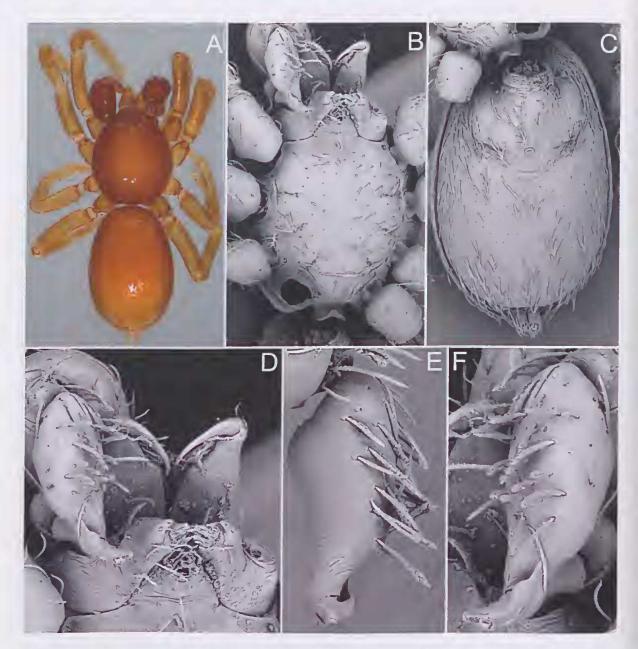


FIG. 59. Opopaea sown Baehr, 2011, male (PBI\_OON 19252 photo, PBI\_OON 19274 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, mouthparts, ventral view; E, male palp, prolateral view; F, same, dorsal view.

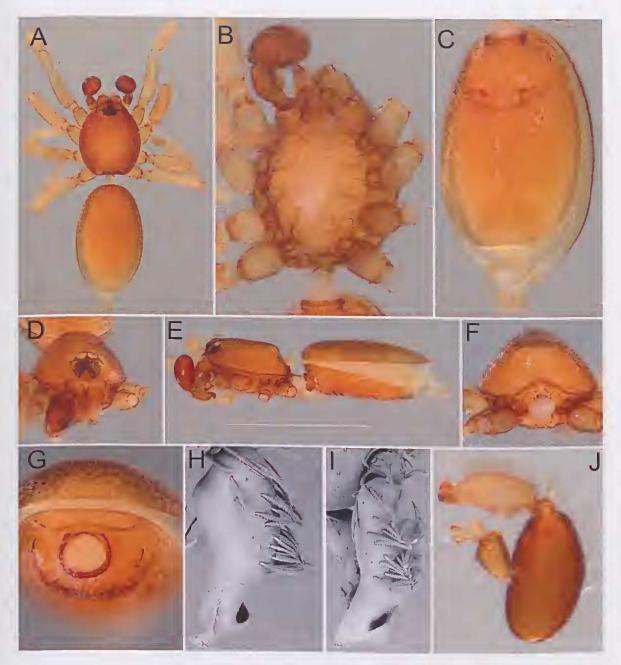


FIG. 60. Opopaea sturt Baehr, sp. nov., male (PBI\_OON 20189 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

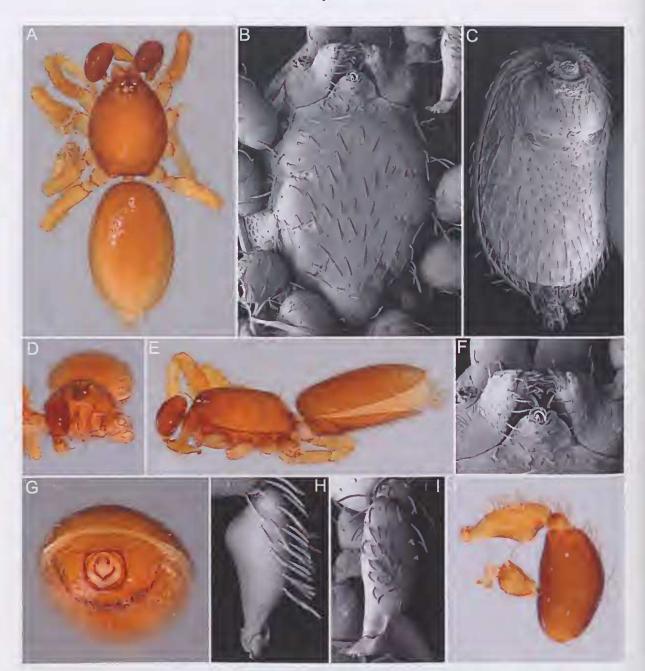


FIG. 61. *Opopaea suelewisae* Baehr and Smith, sp. nov., male (PBI\_OON 19804 photo, PBI\_OON 19788 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

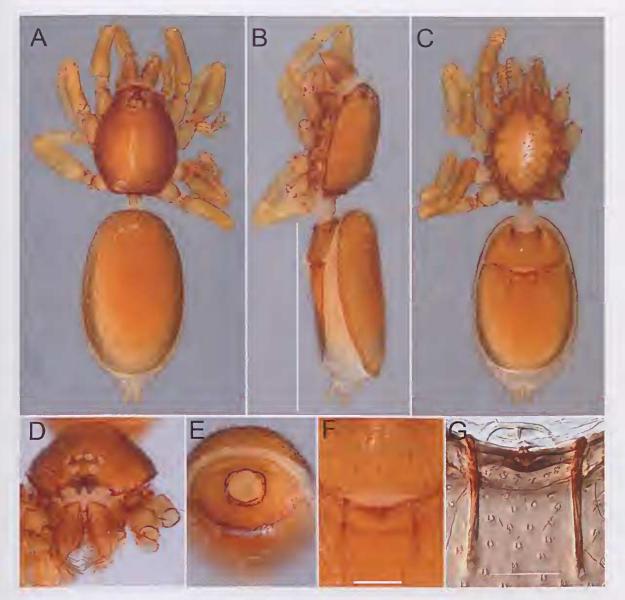


FIG. 62. *Opopaea suelewisae* Baehr and Smith, sp. nov., female (PBI\_OON 19790): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

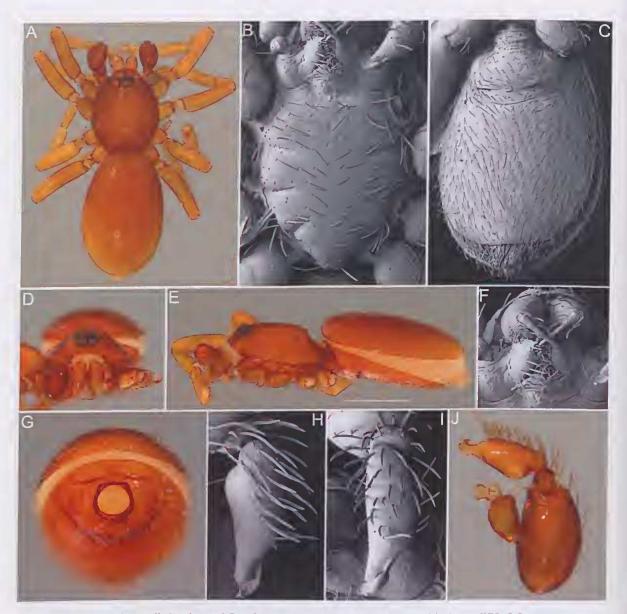


FIG. 63. *Opopaea sylvestrella* Baehr and Smith, sp. nov., male (PBI\_OON 20285 photo, PBI\_OON 20186 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

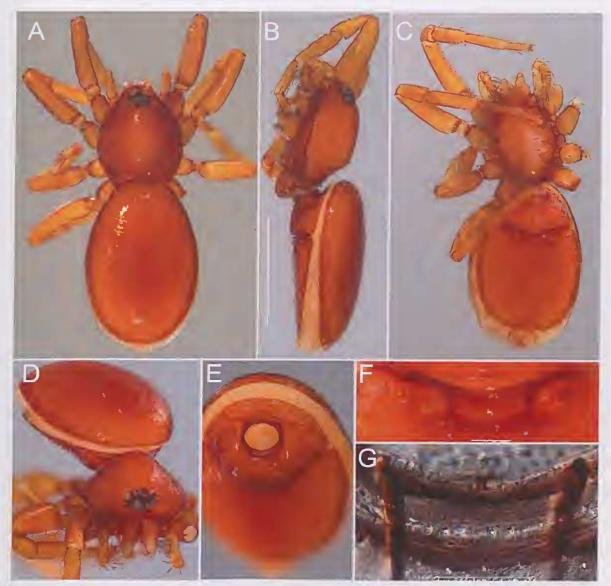


FIG. 64. *Opopaea sylvestrella* Baehr and Smith, sp. nov., female (PBI\_OON 23550): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

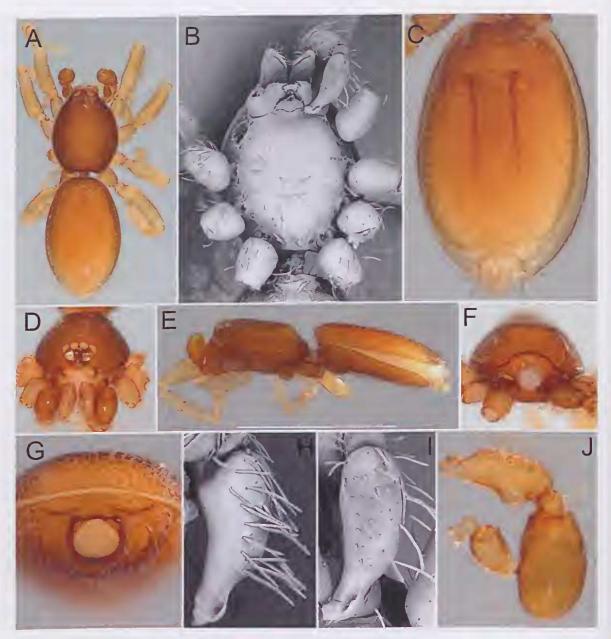


FIG. 65. *Opopaea tenuis* Baehr, sp. nov., male (PBI\_OON 07902 photo, PBI\_OON 07903 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 66. Opopaea tenuis Baehr, sp. nov., female (PBI\_OON 07903): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

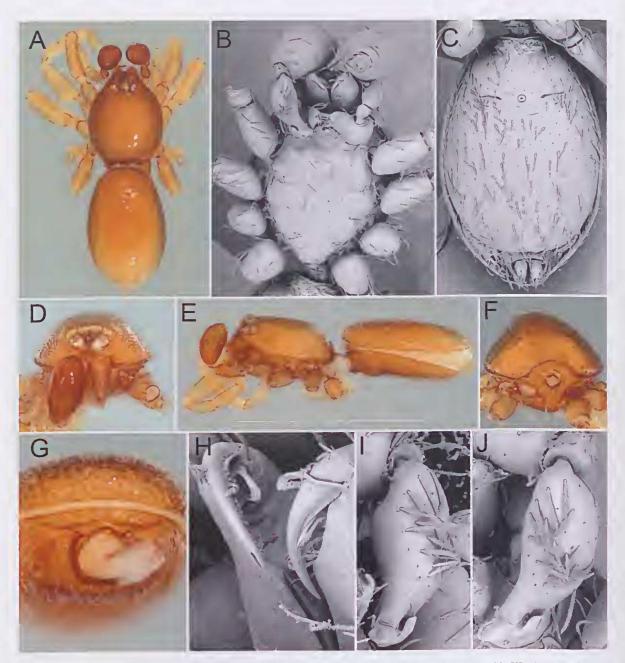


FIG. 67. Opopaea ursulae Baehr, sp. nov., male (PBI\_OON 20184 photo, PBI\_OON 20183 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, Cheliceral fangs, lateral view; I, male palp, prolateral view; J, same, dorsal view.

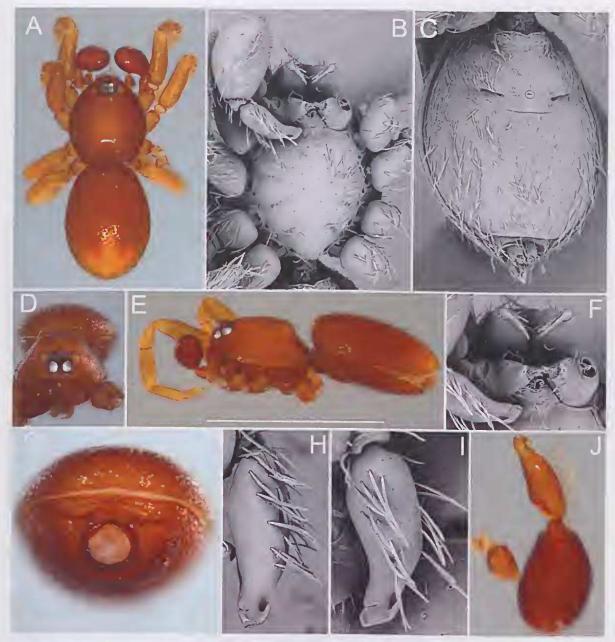


FIG. 68. *Opopaea yorki*, sp. nov., male (PBI\_OON 19273 photo, PBI\_OON 23531 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

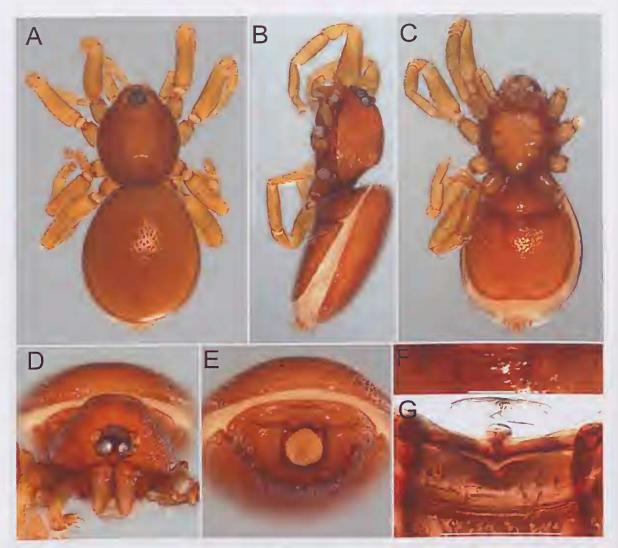


FIG. 69. Opopaea yorki Baehr, sp. nov., female (PBI\_OON 19318): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

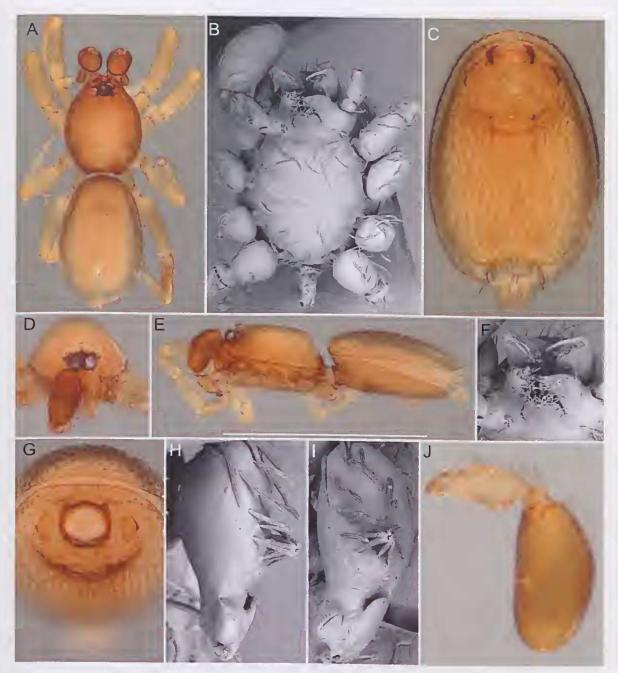


FIG. 70. Opopaea ephemera Baehr, sp. nov., male (PBI\_OON 23644 photo, PBI\_OON 23645 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 71. *Opopaea fishriver* Baehr, sp. nov., male (PBI\_OON 23641 photo, PBI\_OON 23643 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.



FIG. 72. Opopaea fishriver, sp. nov., female (PBI\_OON 23642): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

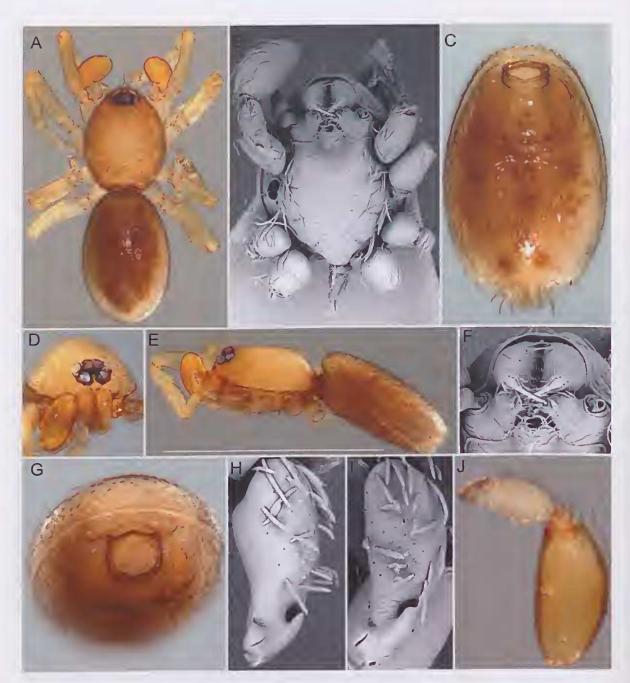


FIG. 73. Opopaea gilliesi Baehr, sp. nov., male (PBI\_OON 23658 photo, PBI\_OON 23660 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

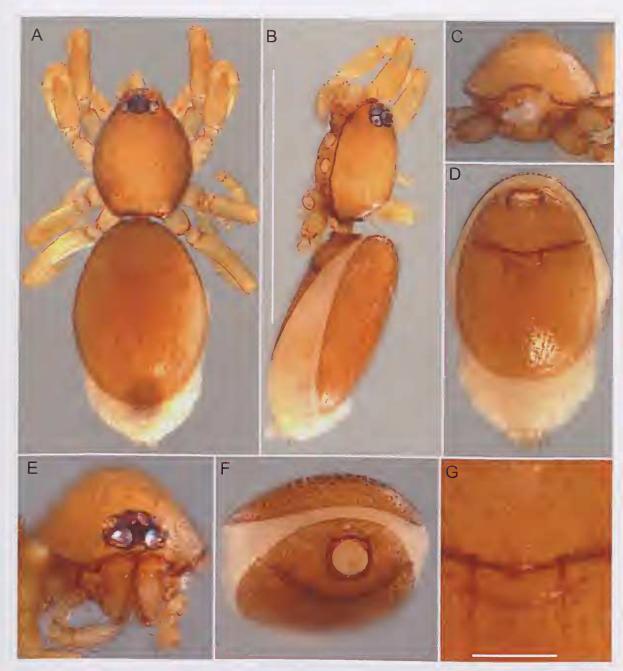


FIG. 74. Opopaea gilliesi Baehr, sp. nov., female (PBI\_OON 23559): A, habitus, dorsal view; B, same, lateral view; C, prosoma, posterior view; D, opisthosoma, ventral view; E, prosoma, anterior view; F, opisthosoma, anterior view; G, female epigyne, ventral view.

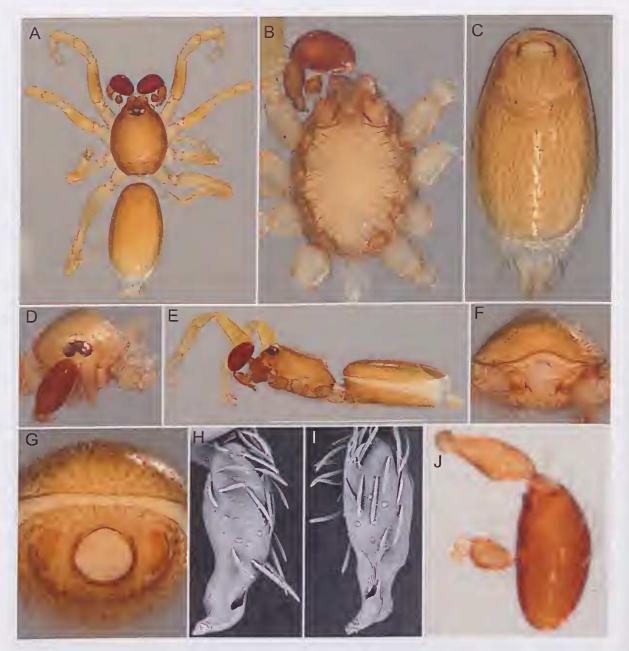


FIG. 75. Opopaea johardingae Baehr, sp. nov., male (PBI\_OON 23652): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

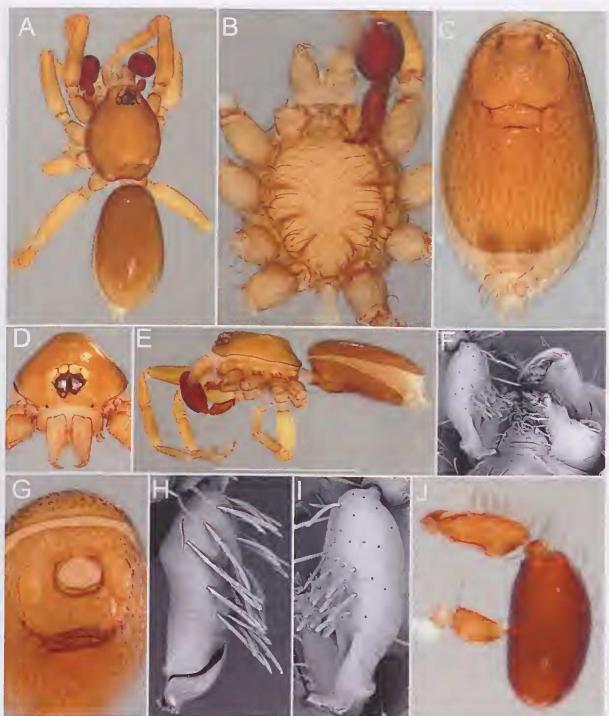


FIG. 76. Opopaea preecei Baehr, sp. nov., male (PBLOON 23-49 photo, PBLOON 23650 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

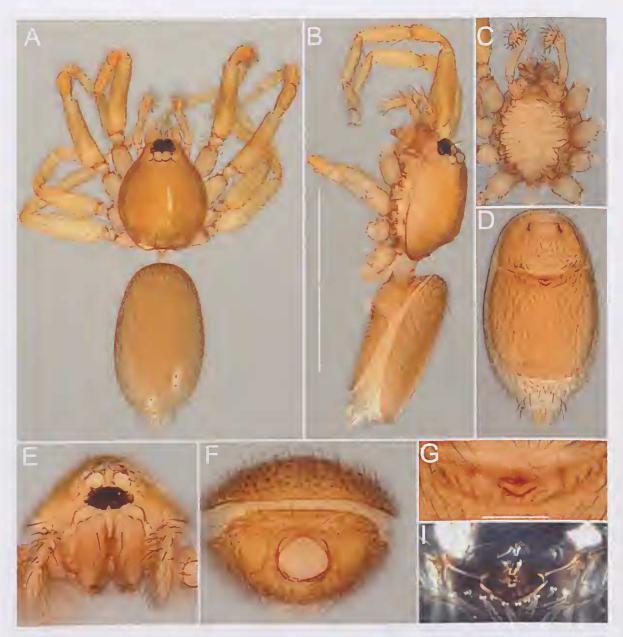


FIG. 77. Opopaea preecei Baehr, sp. nov., female (PBI\_OON 23650): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, opisthosoma, ventral view; E, prosoma, anterior view; F, opisthosoma, anterior view; G, female epigyne, ventral view; H, same, dorsal view.

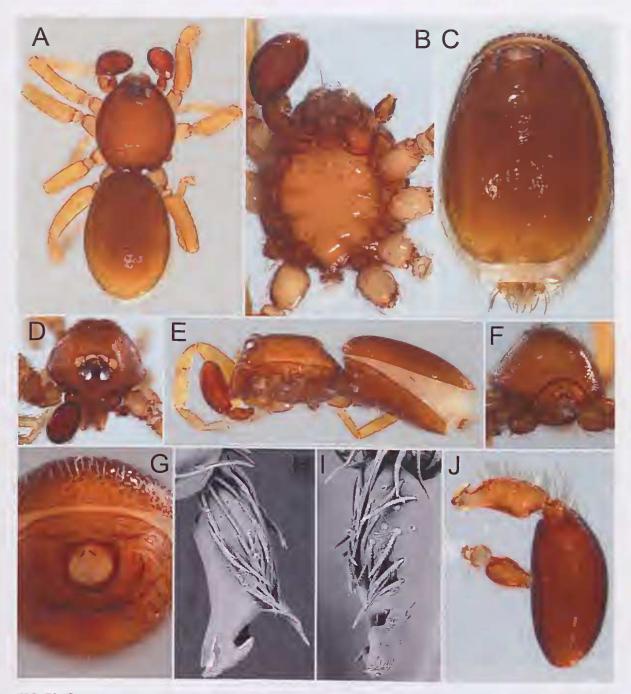


FIG. 78. *Opopaea wongalara* Baehr, sp. nov., male (PBl\_OON 23657 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

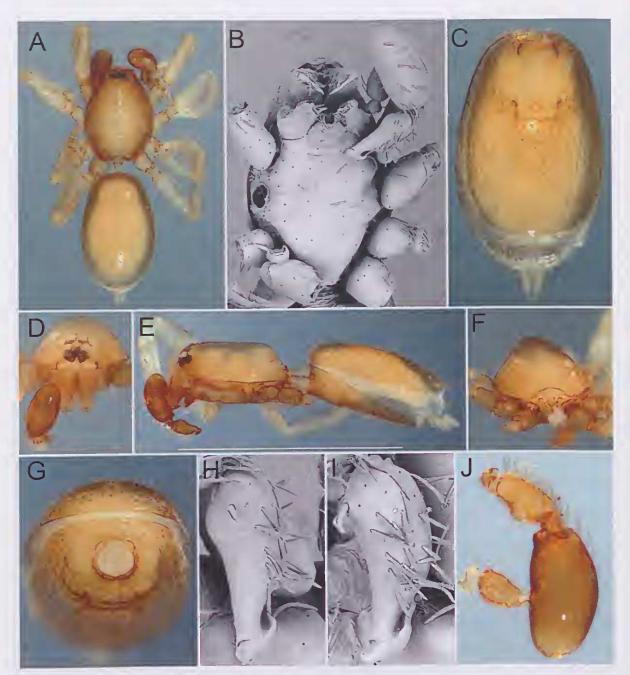


FIG. 79. *Opopaea ameyi* Baehr, sp. nov., male (PBI\_OON 06021 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

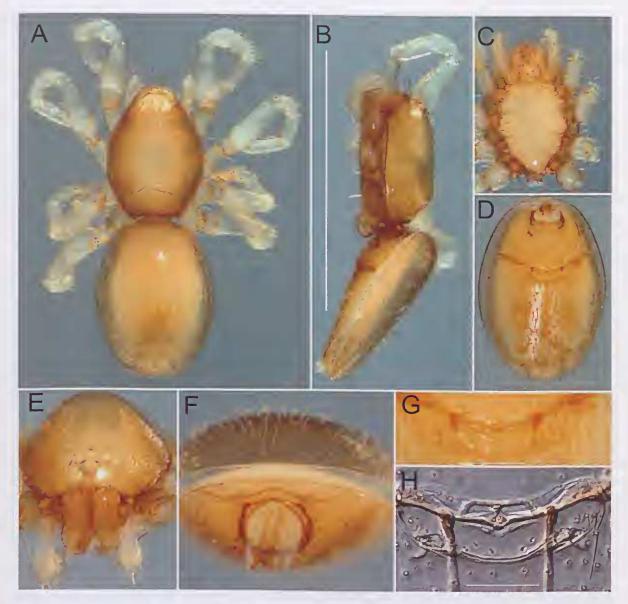


FIG. 80. Opopaea ameyi Baehr, sp. nov., female (PBI\_OON 06021): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, prosoma, ventral view; E, opisthosoma, anterior view; F, prosoma, anterior view; G, female epigyne, ventral view; H, same, dorsal view.

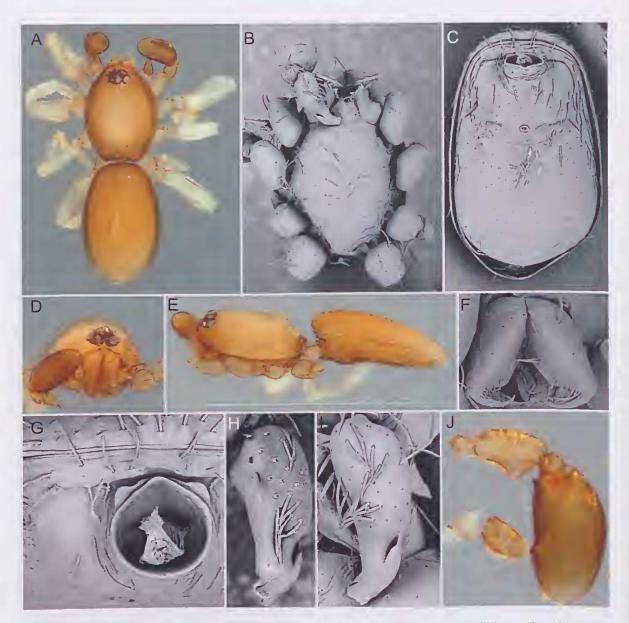


FIG. 81. *Opopaea brisbanensis* Baehr, sp. nov., male (PBI\_OON 19235 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view. E habitus, lateral view; F, Chelicerae, anterior view; G, Pedicel, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

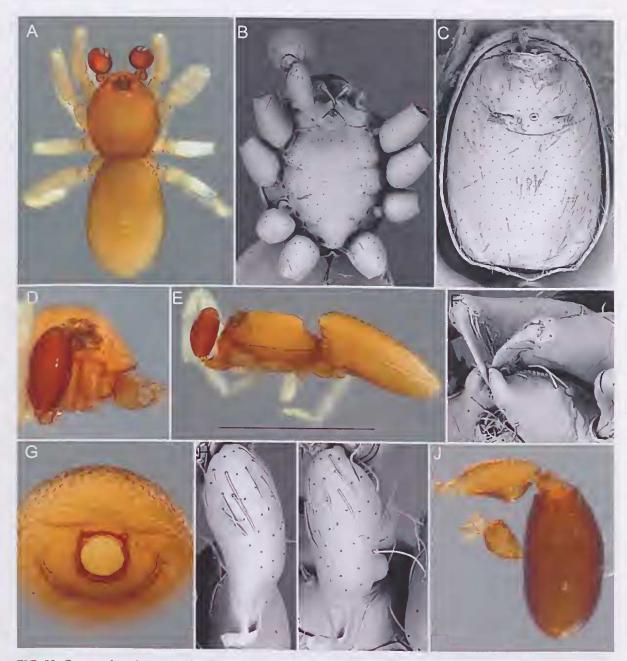


FIG. 82. *Opopaea broadwater* Baehr, sp. nov., male (PBI\_OON 06624 photo, PBI\_OON 23613 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventro-lateral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 83. *Opopaea broadwater* Baehr, sp. nov., female (PBI\_OON 06624): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, opisthosoma, ventral view; **D**, prosoma, ventral view; **E**, opisthosoma, anterior view; **F**, prosoma, anterior view; **G**, female epigyne, ventral view; **H**, same, dorsal view.

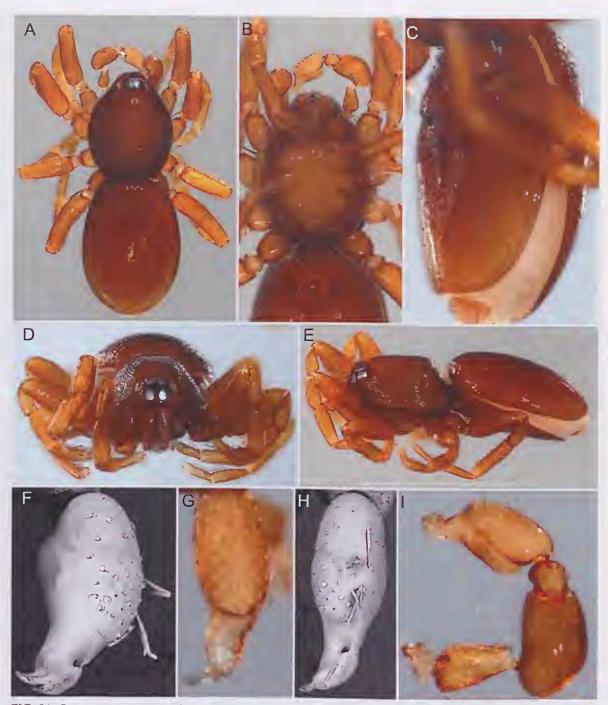


FIG. 84. Opopaea carnarvon Baehr, sp. nov., male (PBI\_OON 23602 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, lateral view; D, prosoma, anterior view; E, habitus, lateral view; F, male palp, prolateral view; G, same, dorsal view (photo); H, same, dorsal view (SEM); I, same, retrolateral view.

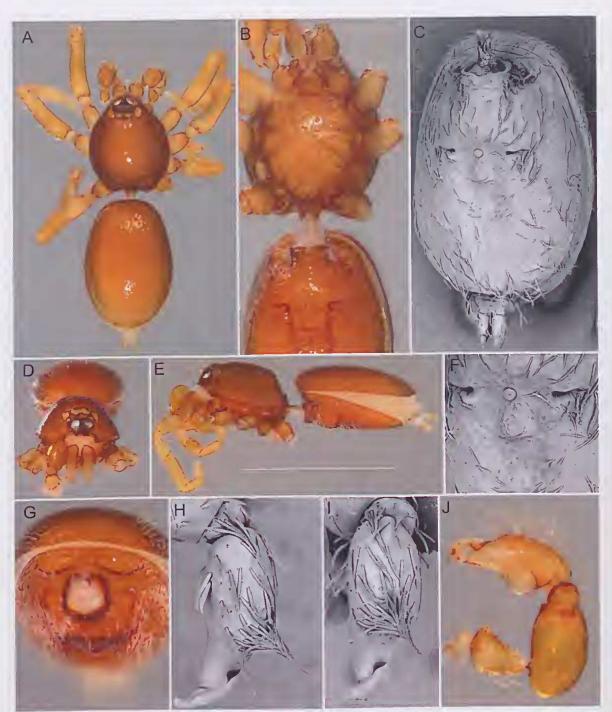


FIG. 85. Opopaea carteri Baehr, sp. nov., male (PBI\_OON 23407 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, Sperm pore, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

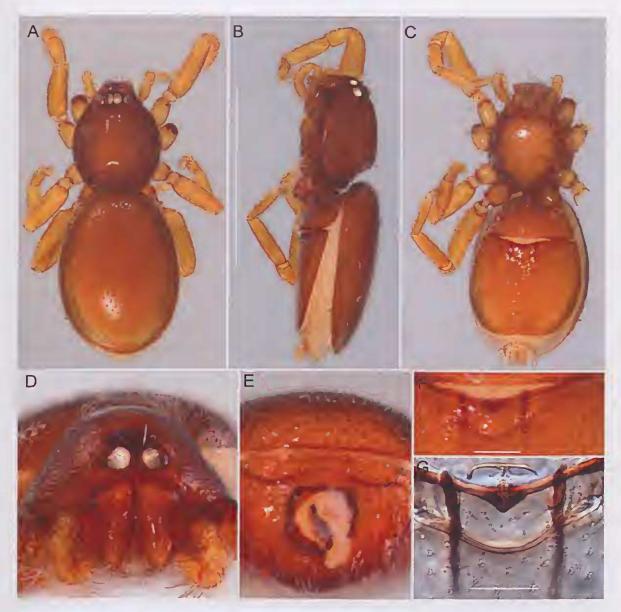


FIG. 86. *Opopaea carteri* Baehr, sp. nov., female (PBI\_OON 23479): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne ventral view; **G**, female epigyne dorsal view.

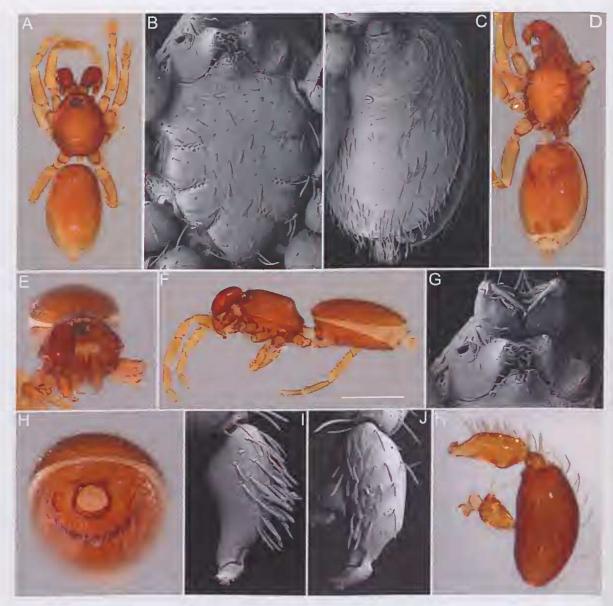


FIG. 87. Opopaea chrisconwayi Baehr and Smith, sp. nov., male (PBI\_OON 23469 photo, PBI\_OON 23470 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, habitus, ventral view; E, prosoma, anterior view; F, habitus, lateral view; G, mouthparts, ventral view; H, opisthosoma, anterior view; I, male palp, prolateral view; J, same, dorsal view; K, same, retrolateral view.

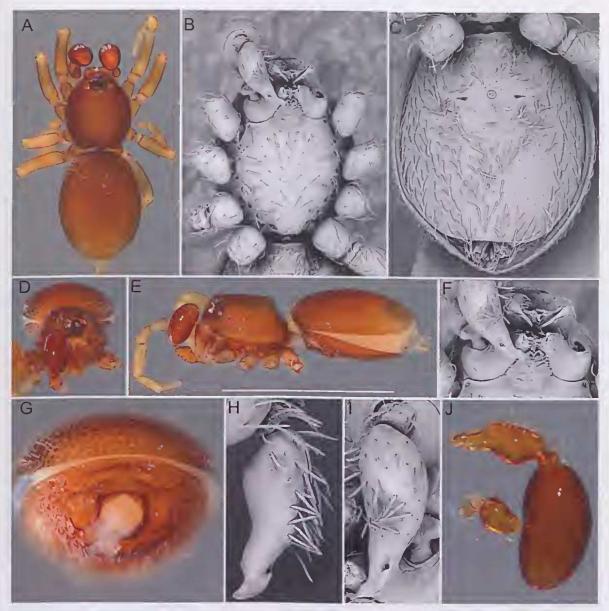


FIG. 88. *Opopaea douglasi* Baehr, sp. nov., male (PBI\_OON 23422 photo, PBI\_OON 23463 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

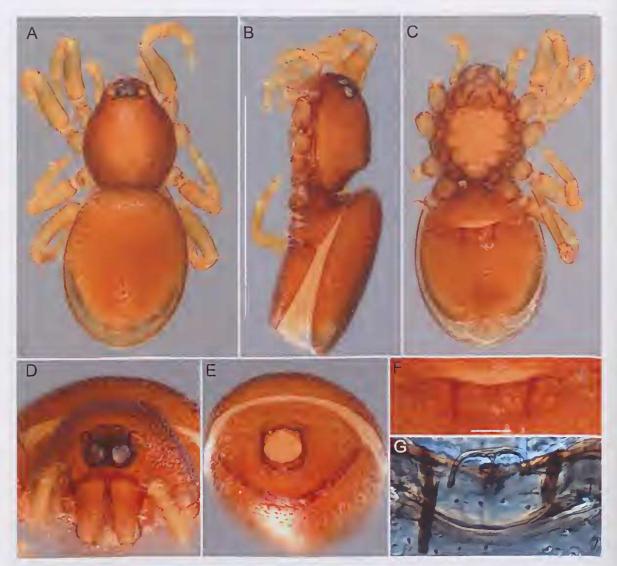


FIG. 89. *Opopaea douglasi* Baehr, sp. nov., female (PBI\_OON 23423): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne ventral view; **G**, female epigyne dorsal view.

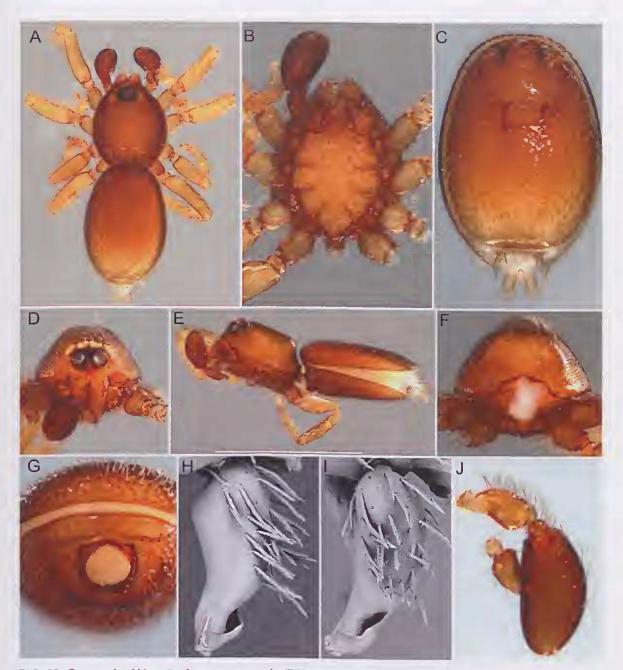


FIG. 90. Opopaea lambkinae Baehr, sp. nov., male (PBI\_OON 23670 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

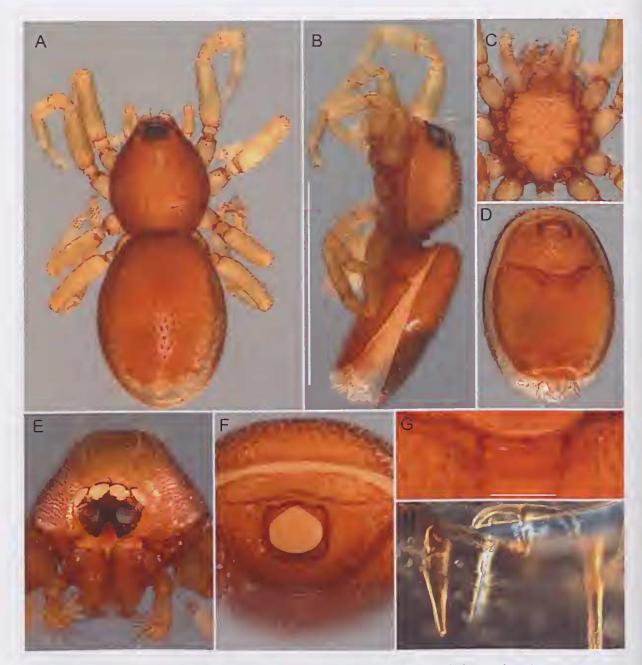


FIG. 91. Opopaea lambkinae Baehr, sp. nov., female (PBI\_OON 23671): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, opisthosoma, ventral view; E, prosoma, anterior view; F, opisthosoma, anterior view; G, female epigyne, ventral view; H, same, dorsal view.

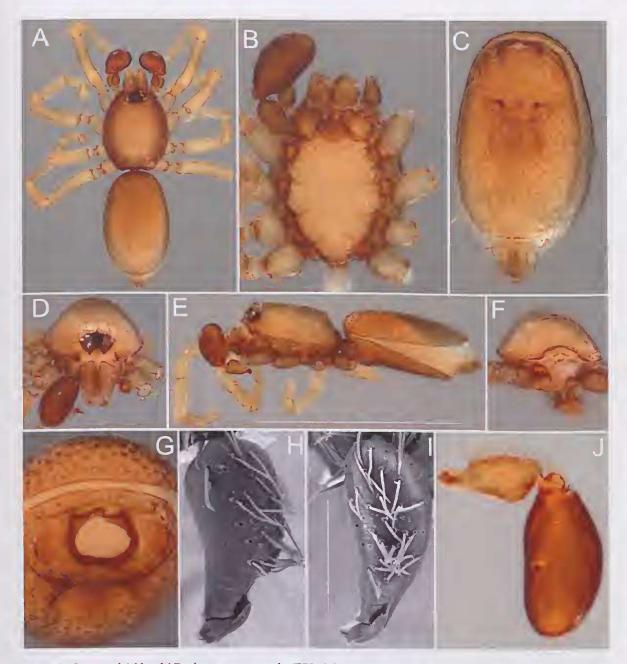


FIG. 92. *Opopaea leichhardti* Baehr, sp. nov., male (PBI\_OON 23700 photo, SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, prosoma, posterior view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.



FIG. 93. *Opopaea leichhardti* Baehr, sp. nov., female (PBI\_OON 237001): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, opisthosoma, ventral view; **D**, opisthosoma, ventral view; **E**, prosoma, anterior view; **F**, opisthosoma, anterior view; **G**, female epigyne, ventral view; **H**, same, dorsal view.

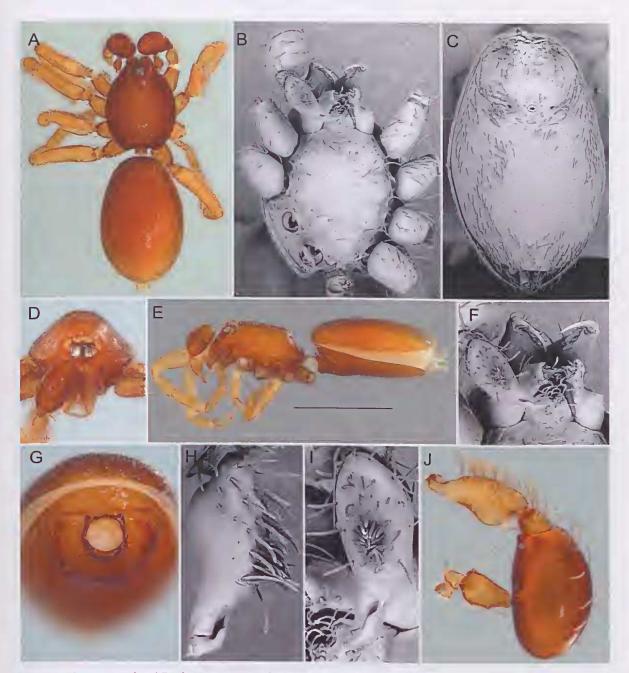


FIG. 94. *Opopaea mcleani* Baehr, sp. nov., male (PBI\_OON 06828 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

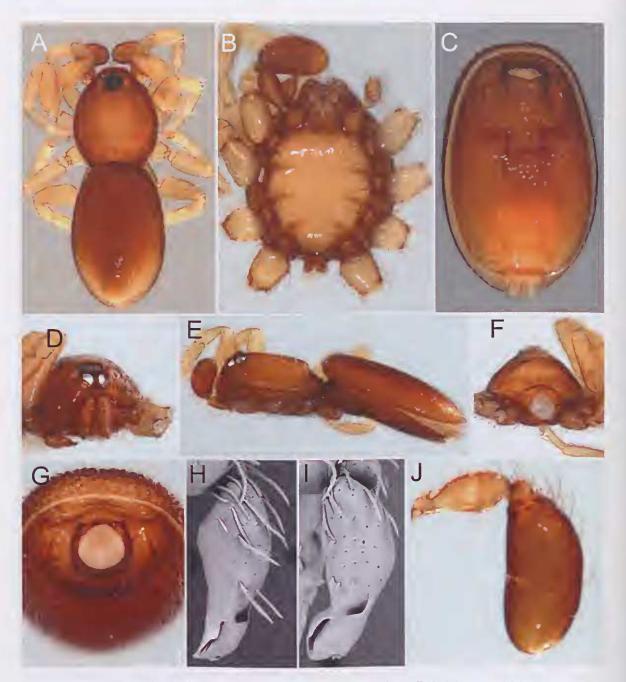


FIG. 95. Opopaea proserpine Baehr, sp. nov., male (PBI\_OON 23664 photo, PBI\_OON 23415 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

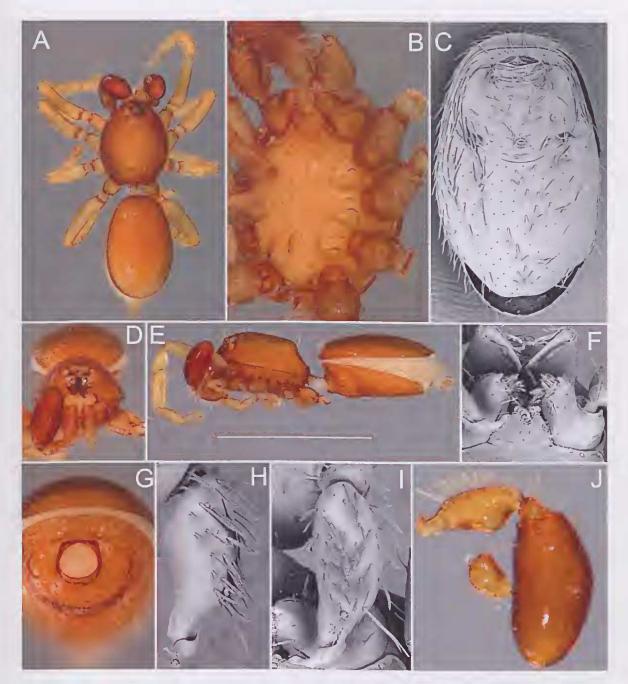


FIG. 96. Opopaea stanisici Baehr, sp. nov., male (PBI\_OON 23405 photo, PBI\_OON 23415 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

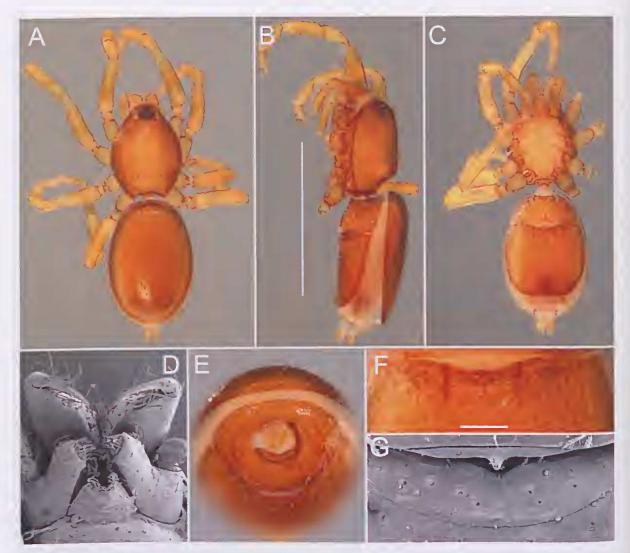


FIG. 97. *Opopaea stanisici* Baehr, sp. nov., female (PBI\_OON 23411): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, mouthparts, ventral view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

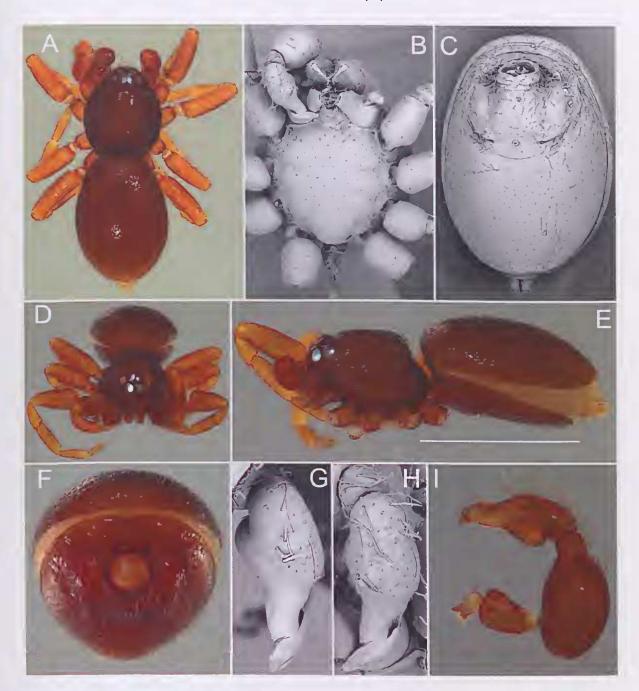


FIG. 98. *Opopaca ulrichi* Baehr, sp. nov., male (PBI\_OON 22896 photo, PBI\_OON 23415 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, opisthosoma, anterior view; G, male palp, prolateral view; H, same, dorsal view; I, same, retrolateral view.

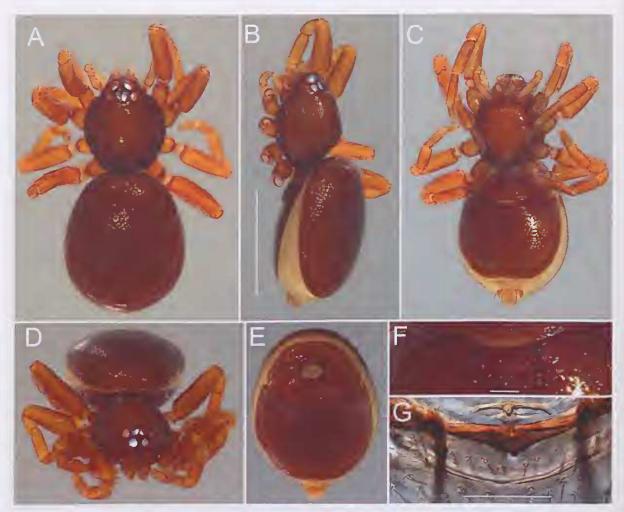


FIG. 99. Opopaea ulrichi Baehr, sp. nov., female (PBI\_OON 22896): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, antero-ventral view; F, female epigyne, ventral view; G, same, dorsal view.

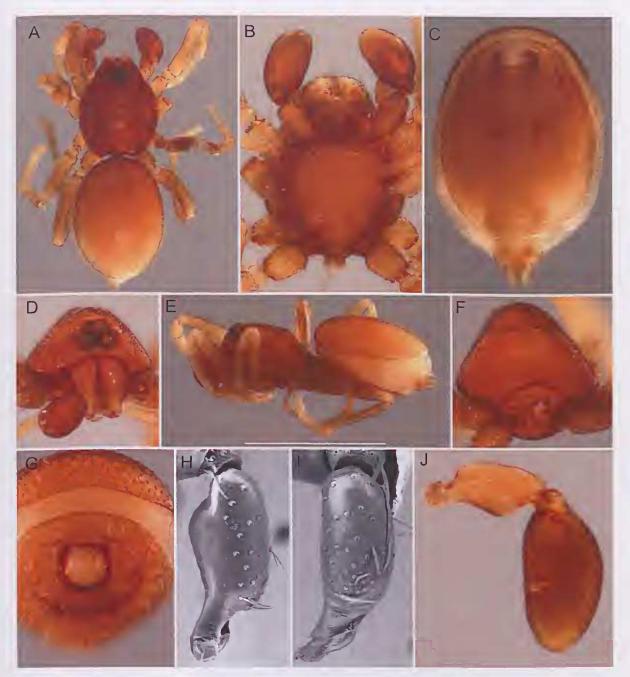


FIG. 100. Opopaea banksi (Hickman), male (PBI\_OON 23677 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

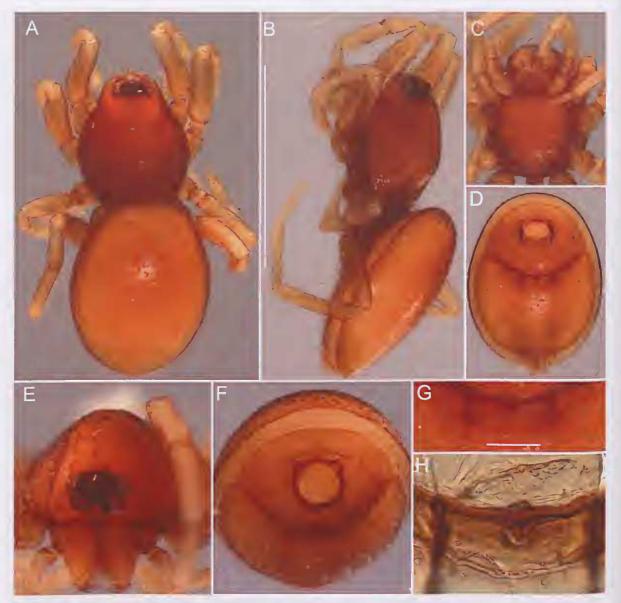


FIG. 101. *Opopaca banksi* (Hickman), female (PBI\_OON 23678): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, prosoma, ventral view; E, opisthosoma, anterior view; F, opisthosoma, anterior view; G, female epigyne, ventral view; H, same, dorsal view.

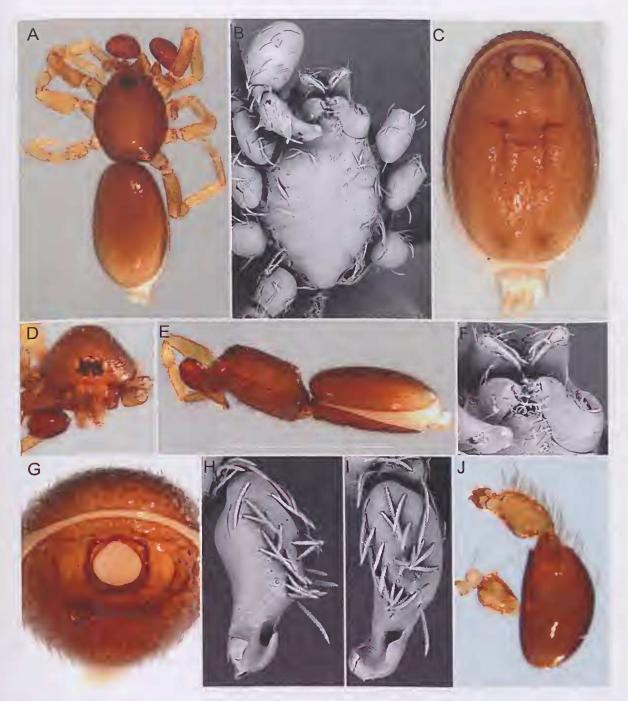


FIG. 102. *Opopaea millbrook* Baehr, sp. nov., male (PBI\_OON 22884 photo, SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

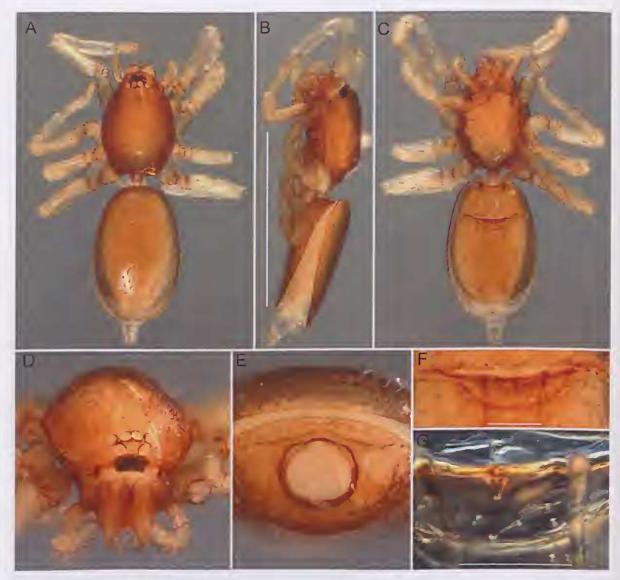


FIG. 103. *Opopaea millbrook* Baehr, sp. nov., female (PBI\_OON 23667): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

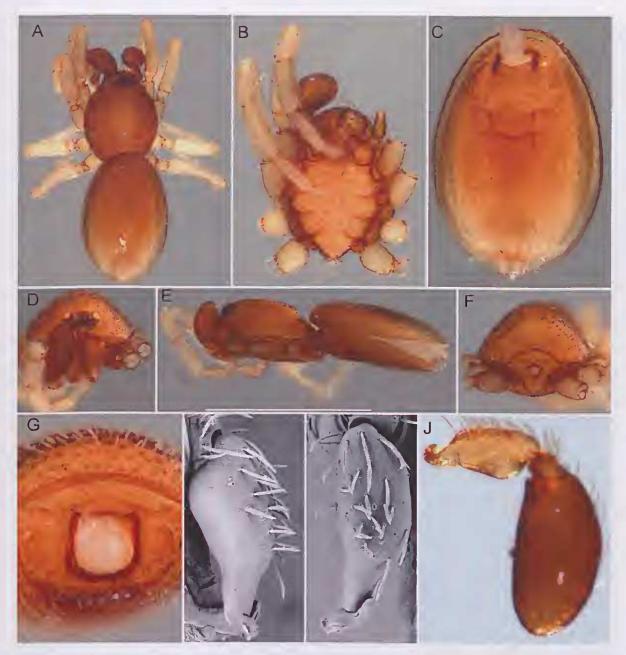


FIG. 104. Opopaea mundy Baehr, sp. nov., male (PBI\_OON 22883 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

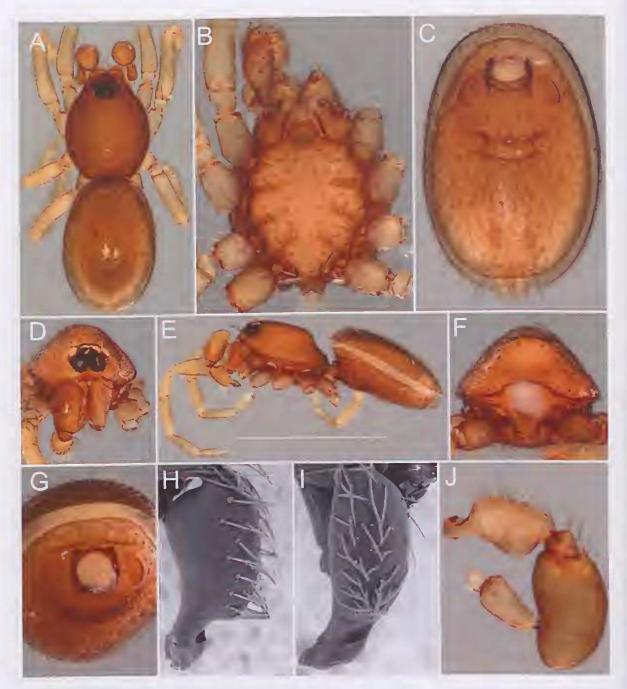


FIG. 105. Opopaea stevensi Baehr, sp. nov., male (PBL\_OON 23699 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

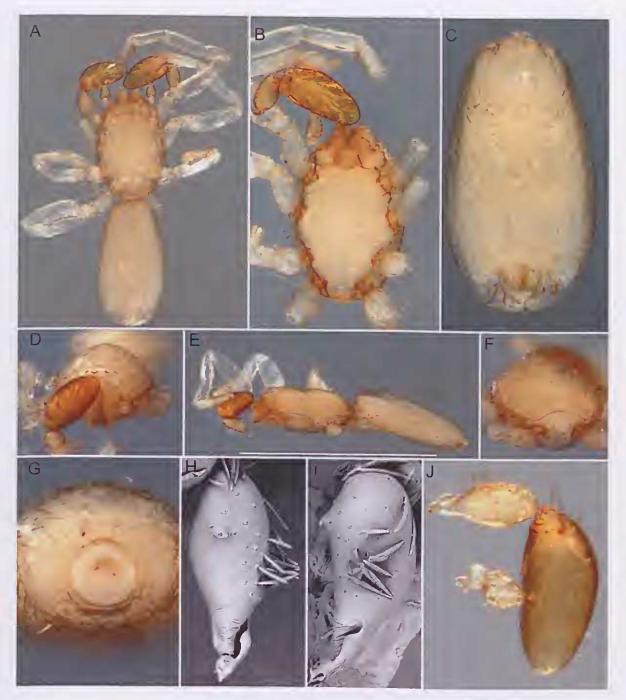


FIG. 106. Opopaea aculeata Baehr and Harvey, sp. nov., male (PBI\_OON 04031 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

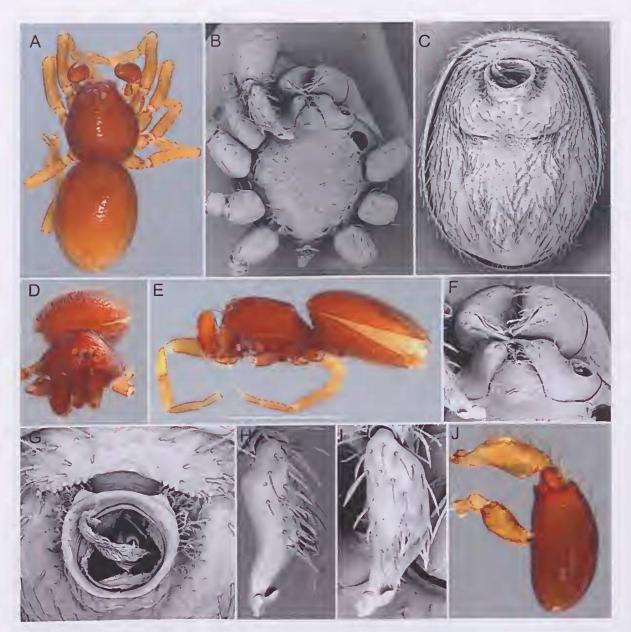


FIG. 107. *Opopaea aurantiaca* Baehr and Harvey, sp. nov., male (PBI\_OON 04521 photo, PBI\_OON 20369 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

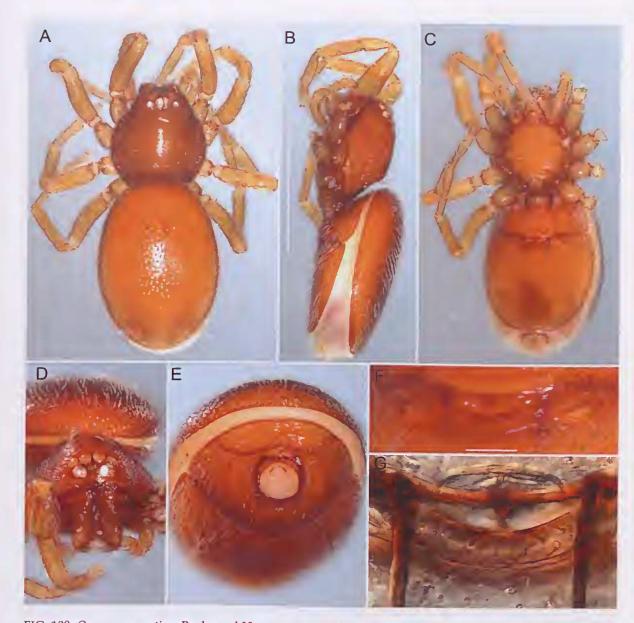


FIG. 108. *Opopaea aurantiaca* Baehr and Harvey, sp. nov., female (PBI\_OON 19437): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

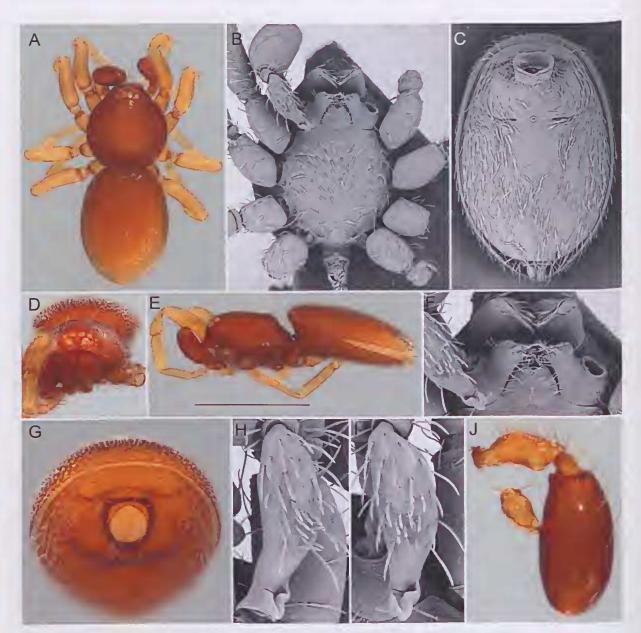


FIG. 109. Opopaea billrotli Baehr and Harvey, sp. nov., male (PBI\_OON 04378 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

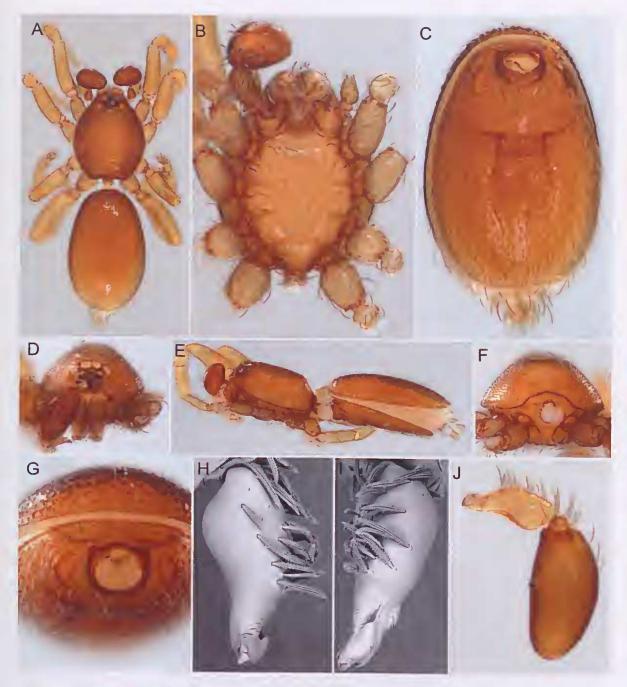


FIG. 110. Opopaea callani Baehr and Harvey, sp. nov., male (PBI\_OON 23623 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 111. *Opopaea cowra* Baehr and Harvey, sp. nov., male (PBI\_OON 04688 photo, SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, opisthosoma, anterior view; **G**, male palp, prolateral view; **H**, same, dorsal view; **I**, same, retrolateral view.

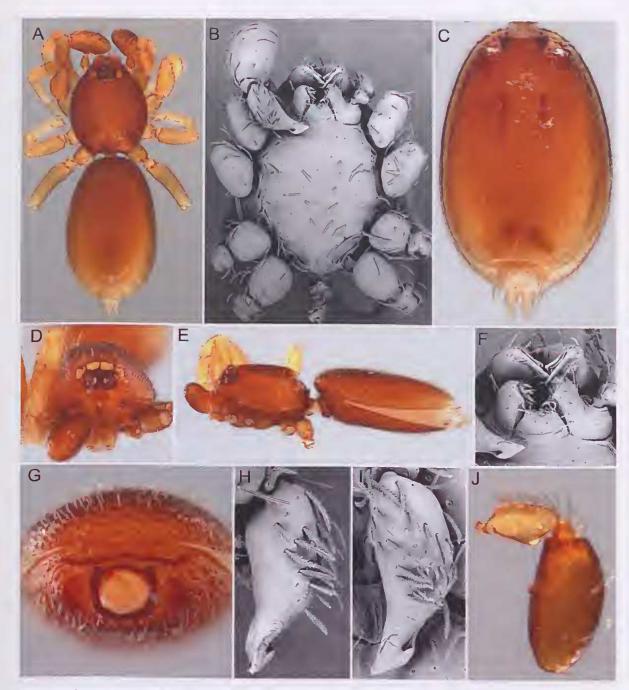


FIG. 112. *Opopaea durranti* Baehr and Harvey, sp. nov., male (PBI\_OON 04649 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

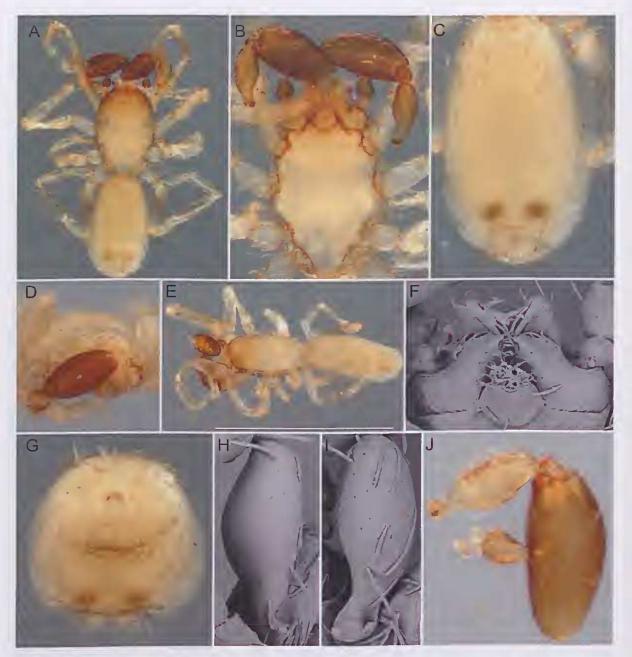


FIG. 113. *Opopaea exoculata* Baehr and Harvey, sp. nov., male (PBI\_OON 04028 photo, PBI\_OON 23615 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

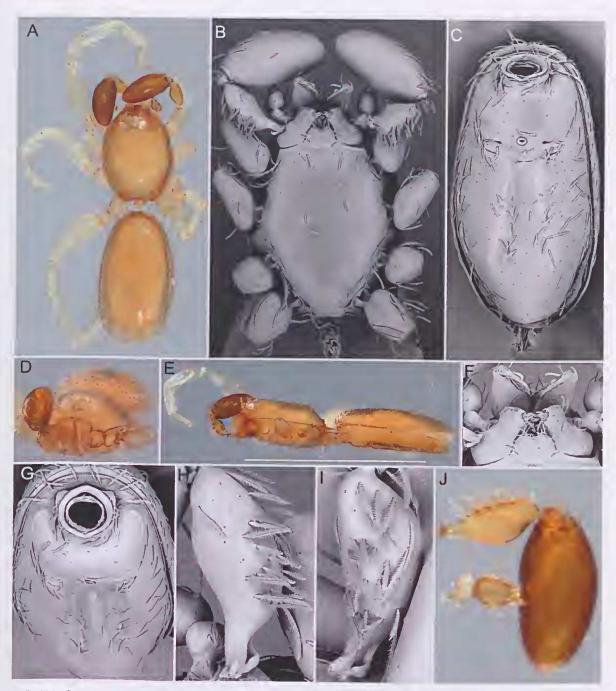


FIG. 114. Opopaea flava Baehr and Harvey, sp. nov., male (PBI\_OON 04037 photo, PBI\_OON 23617 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

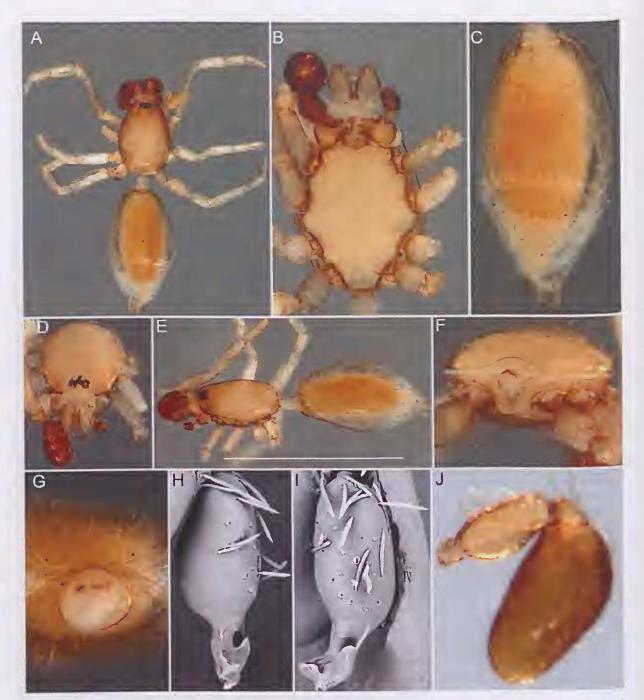


FIG. 115. Opopaea fragilis Baehr and Harvey, sp. nov., male (PBI\_OON 22894 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

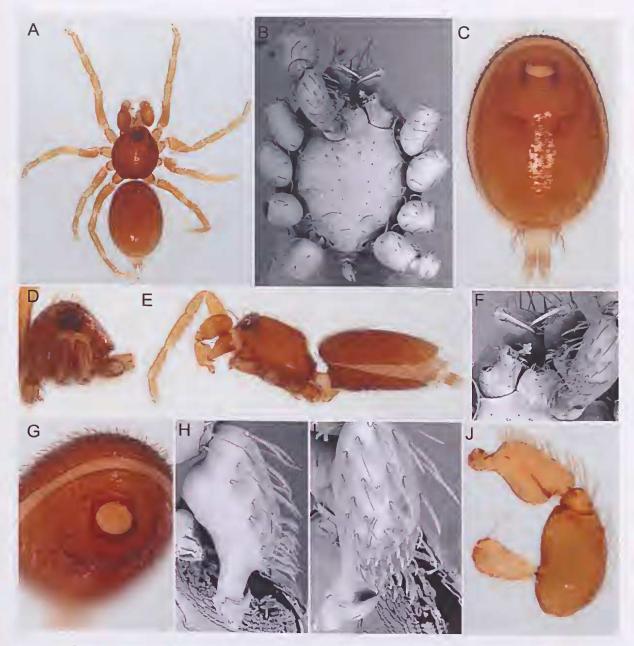


FIG. 116. Opopaea framenaui Baehr and Harvey, sp. nov., male (PBI\_OON 23632 photo, PBI\_OON 18029 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

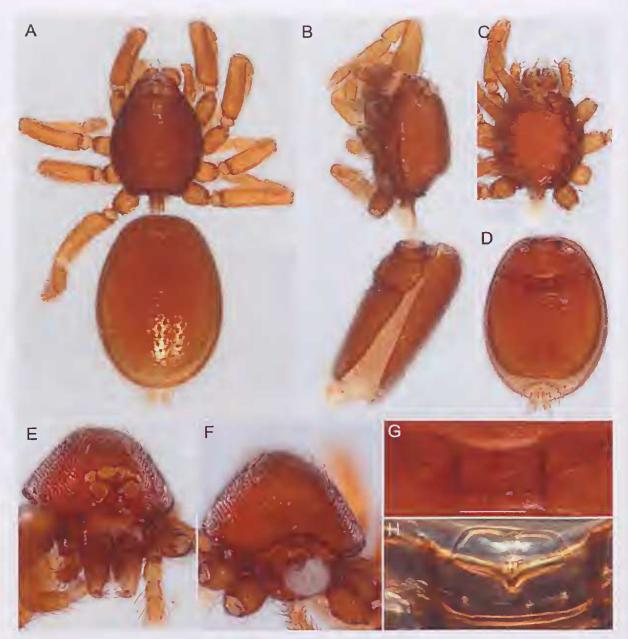


FIG. 117. Opopaea framenaui Baehr and Harvey, sp. nov., female (PBI\_OON 46762): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, prosoma, ventral view; E, prosoma, anterior view; F, prosoma, posterior view; G, female epigyne, ventral view; H, same, dorsal view.

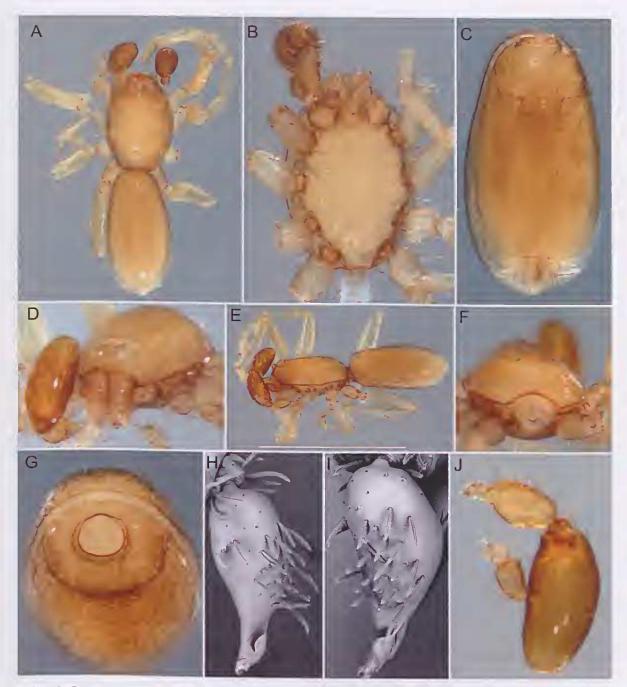


FIG. 118. Opopaea gracilis Baehr and Harvey, sp. nov., male (PBI\_OON 04029 photo, SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, posterior view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

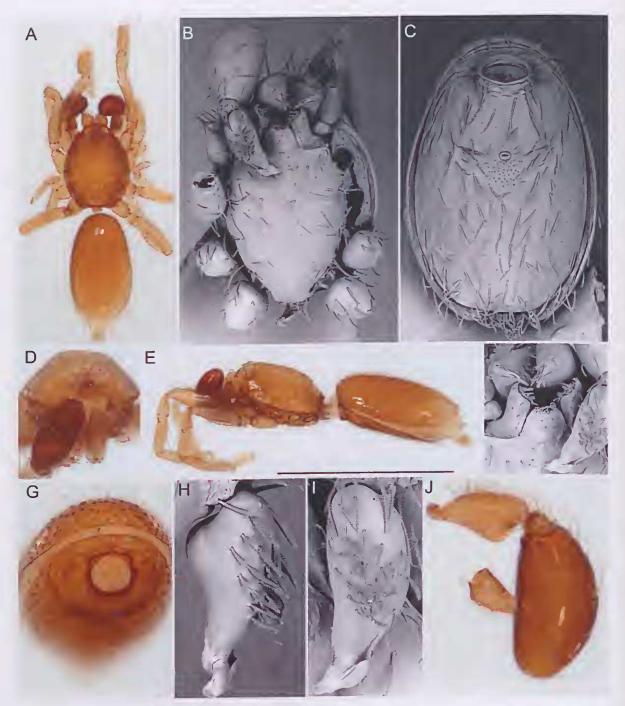


FIG. 119. Opopaea gracillima Baehr and Harvey, sp. nov., male (PBI\_OON 23622 photo, PBI\_OON 18026 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

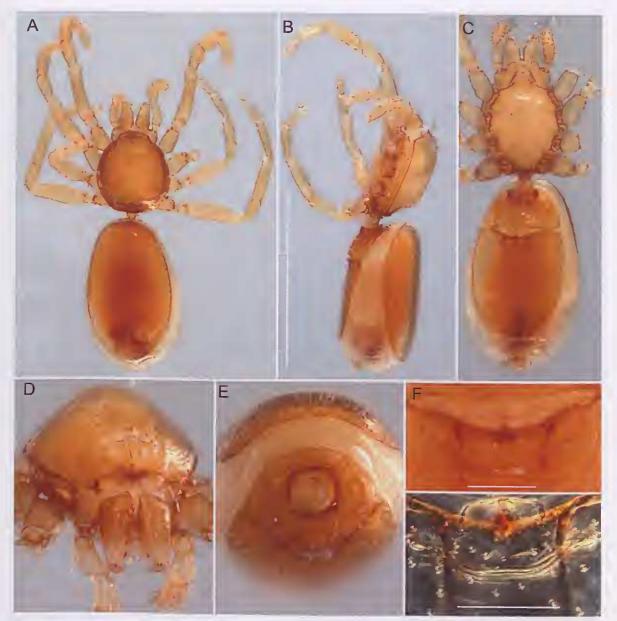


FIG. 120. Opopaea gracillima Baehr and Harvey, sp. nov., female (PBI\_OON 23620): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

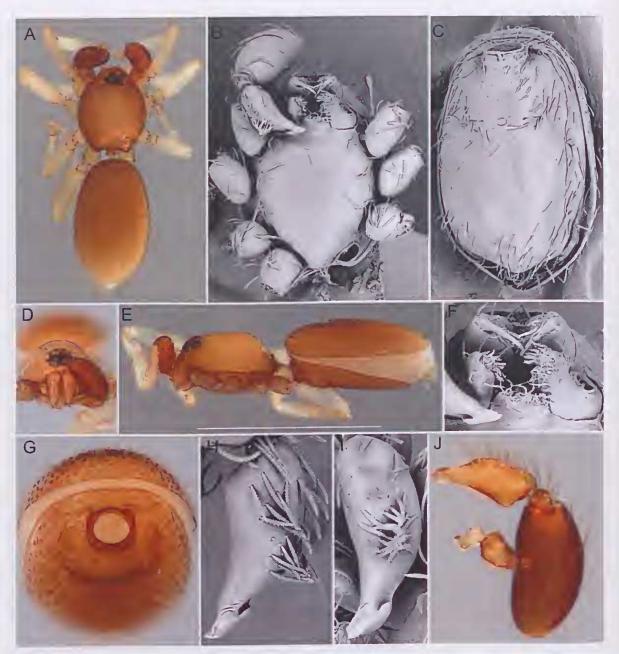


FIG. 121 *Opopaea harmsi* Baehr and Harvey, sp. nov., male (PBI\_OON 17804 photo, PBI\_OON 23630 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

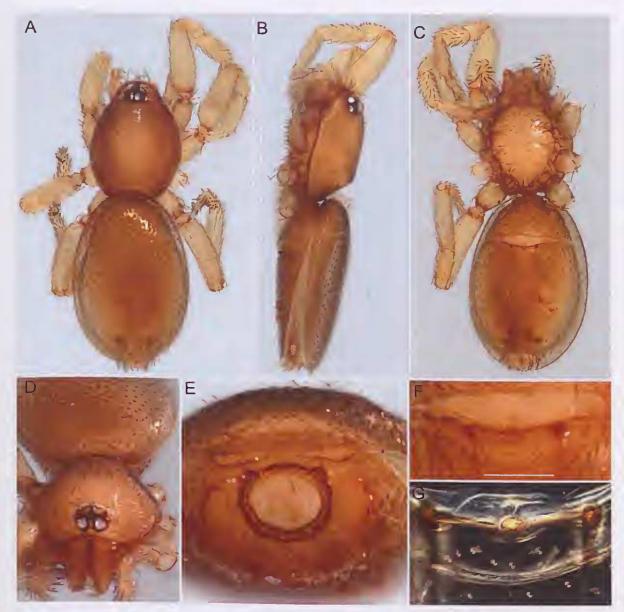


FIG. 122. *Opopaea harmsi* Baehr and Harvey, sp. nov., female (PBI\_OON 17782): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

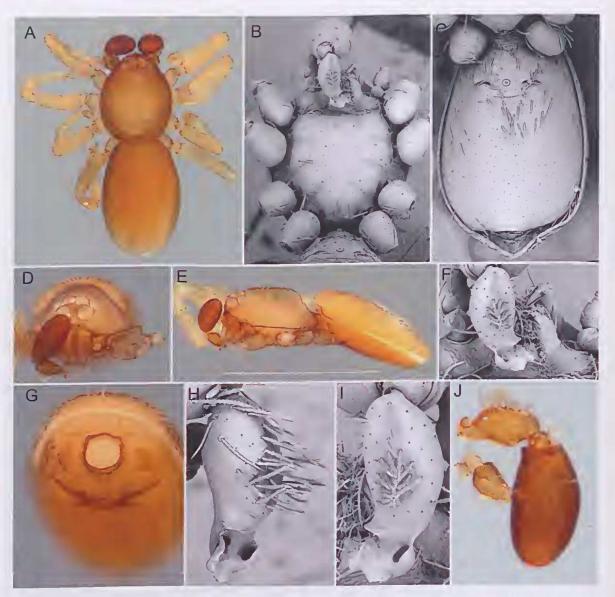


FIG. 123. *Opopaea johannae* Baehr and Harvey, sp. nov., male (PBI\_OON 04625 photo, PBI\_OON 48259 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

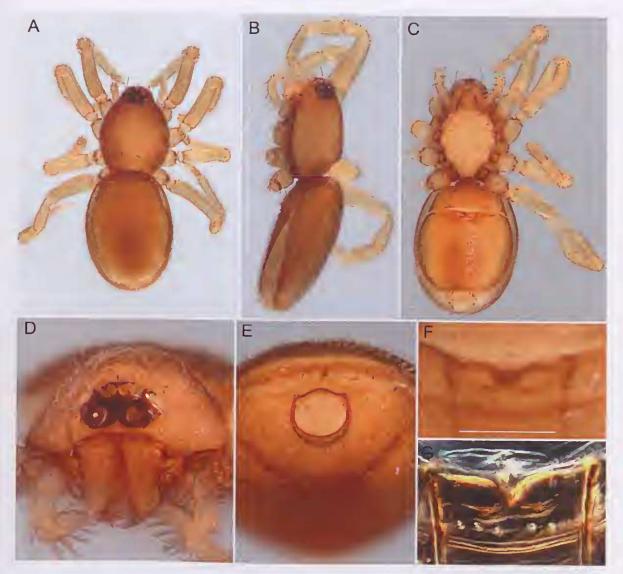


FIG. 124. *Opopaea johannae* Baehr and Harvey, sp. nov., female (PBI\_OON 23623): **A**, habitus, dorsal view; B, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

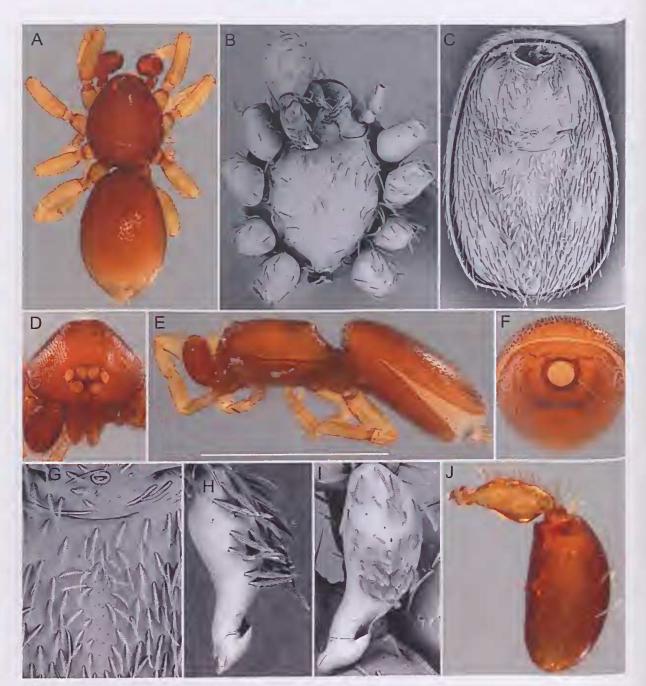


FIG. 125. Opopaea julianneae Baehr and Ott, sp. nov., male (PBl\_OON 04675 photo, PBI\_OON 48267 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, opisthosoma, anterior view; G, Postepigastric scutum, ventral view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

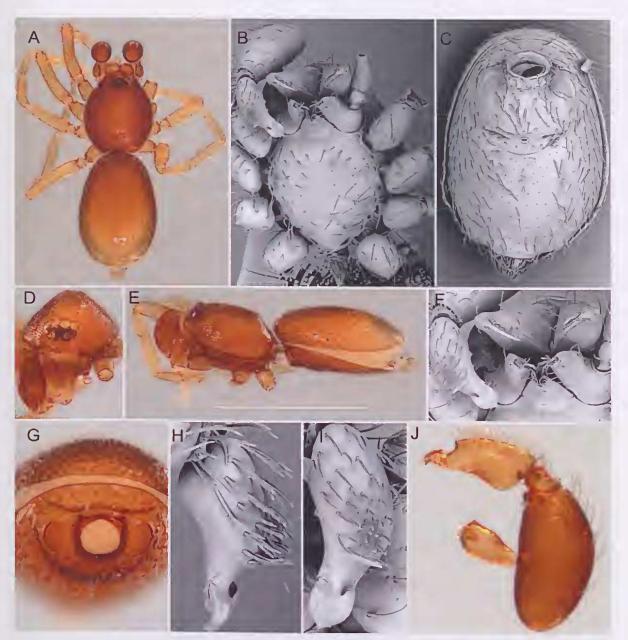


FIG. 126. Opopaea marangaroo Baehr and Harvey, sp. nov., male (PBI\_OON 18033 photo, PBI\_OON 23636 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

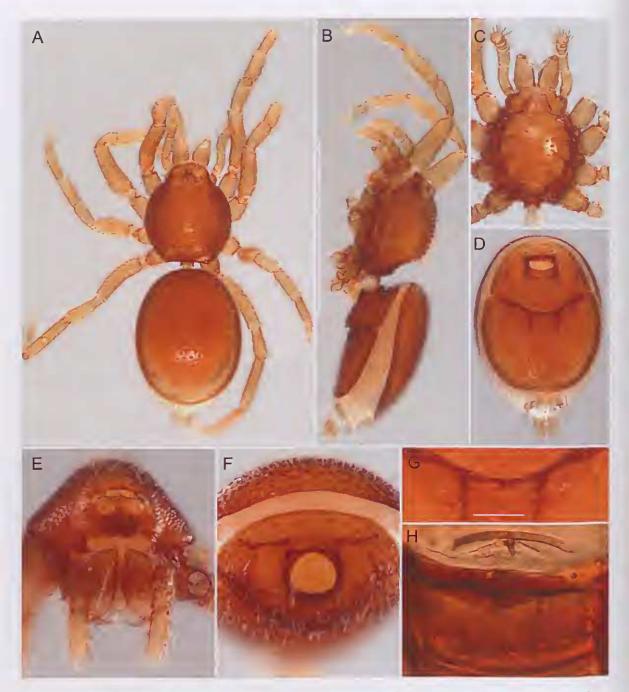


FIG. 127. *Opopaea marangaroo* Baehr and Harvey, sp. nov., female (PBI\_OON 23637): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, prosoma, ventral view; E, prosoma, anterior view; F, opisthosoma, anterior view; G, female epigyne, ventral view; H, same, dorsal view.

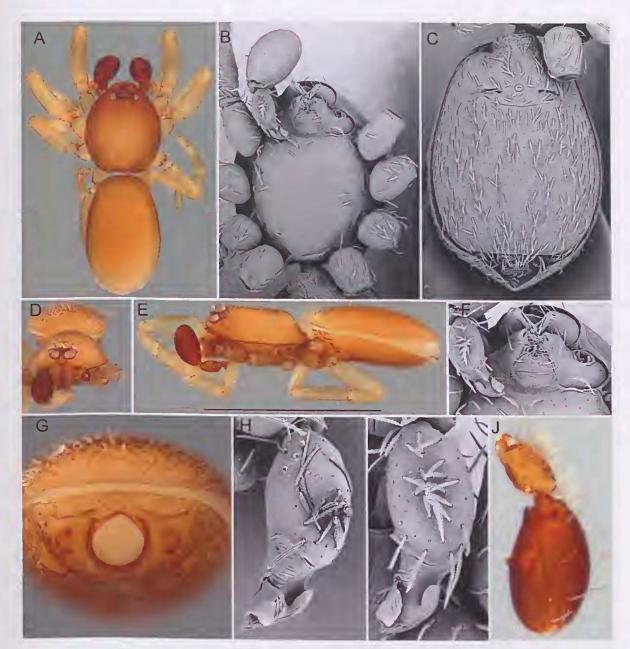


FIG. 128. *Opopaea millstream* Baehr and Harvey, sp. nov., male (PBI\_OON 04630 photo, PBI\_OON 20122 SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

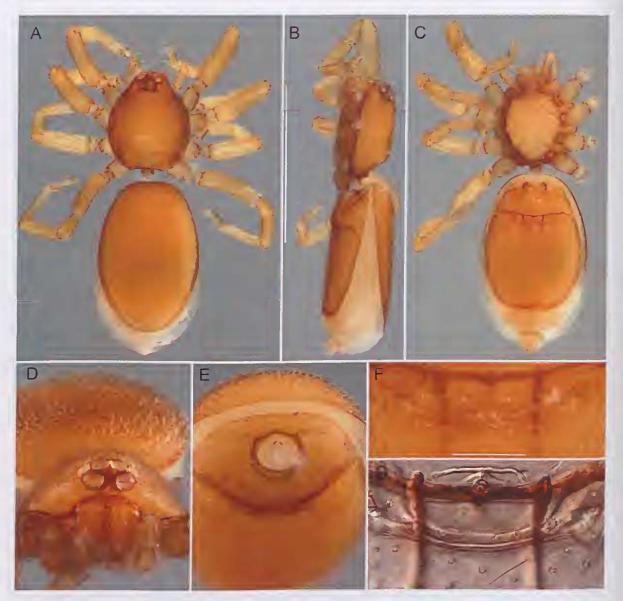


FIG. 129. Opopaea millstream Baehr and Harvey, sp. nov., female (PBI\_OON 20193): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

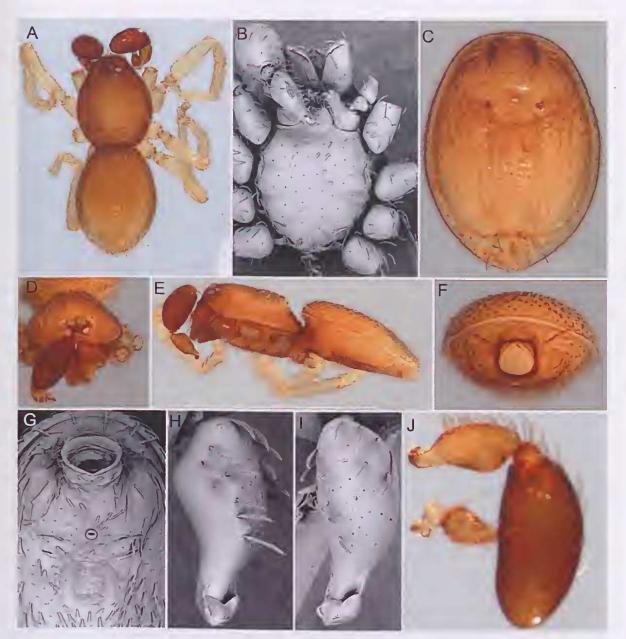


FIG. 130. Opopaca nadineae Baehr and Harvey, sp. nov., male (PBI\_OON 04700 photo, SEM PBI\_OON 48270): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, opisthosoma, anterior view; G, Epigastric area, ventral view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

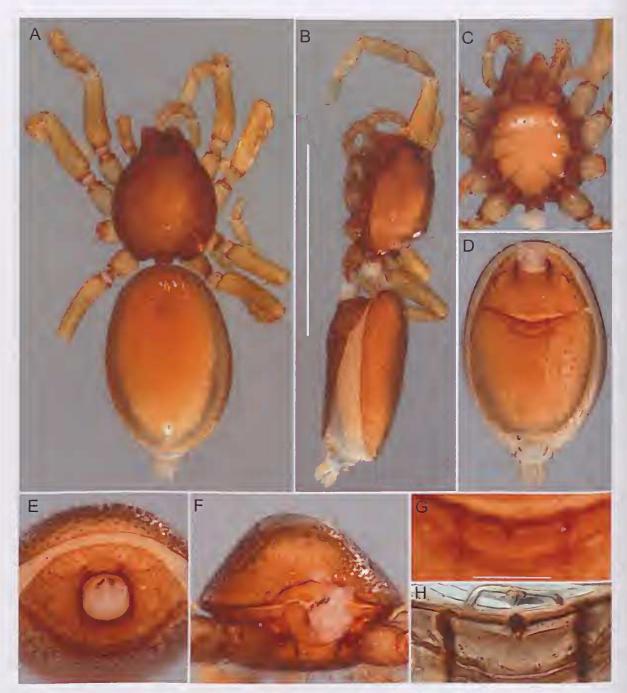


FIG. 131. *Opopaea nadineae* Baehr and Harvey, sp. nov., female (PBI\_OON 48269): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, prosoma, ventral view; E, opisthosoma, anterior view; F, prosoma, posterior view; G, female epigyne, ventral view; H, same, dorsal view.

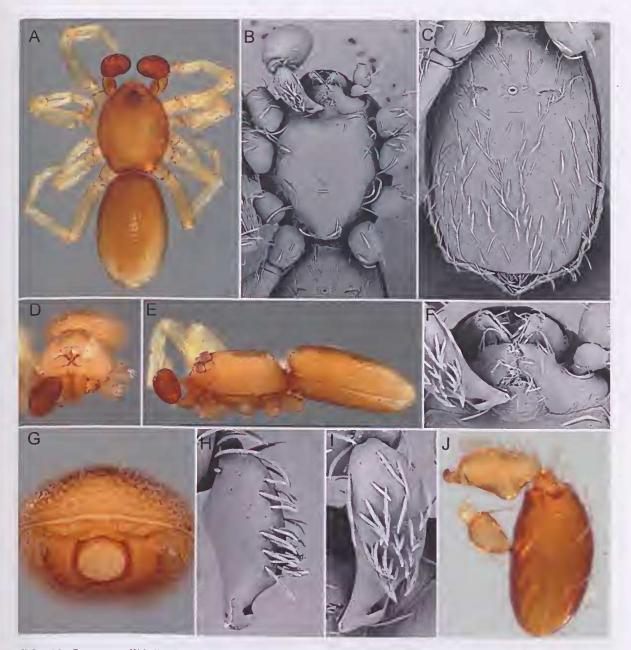


FIG. 132. *Opopaea pallida* Baehr and Harvey, sp. nov., male (PBI\_OON 04598 photo, SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, mouthparts, ventral view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

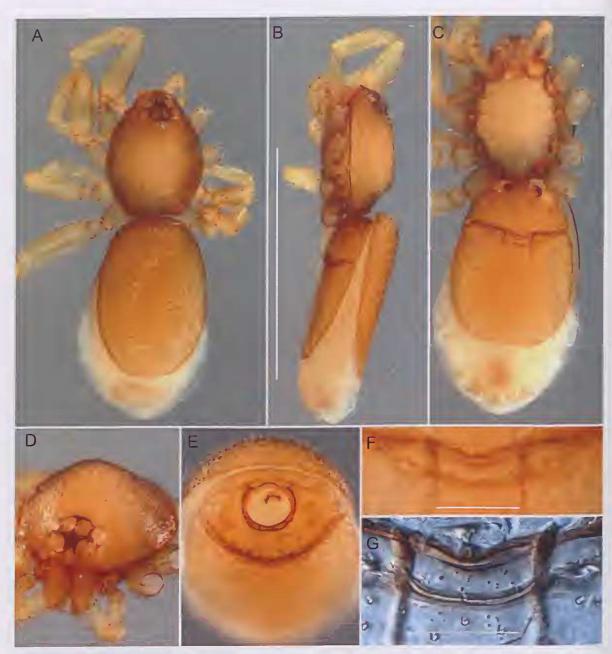


FIG. 133. *Opopaea pallida* Baehr and Harvey, sp. nov., female (PBI\_OON 23679): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

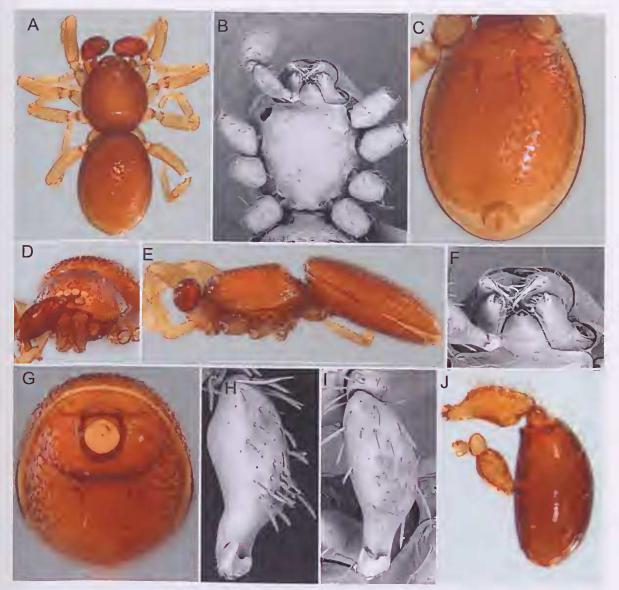


FIG. 134. *Opopaea pannawonica* Baehr and Ott, sp. nov., male (PBI\_OON 04632 photo, PBI\_OON 23618 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

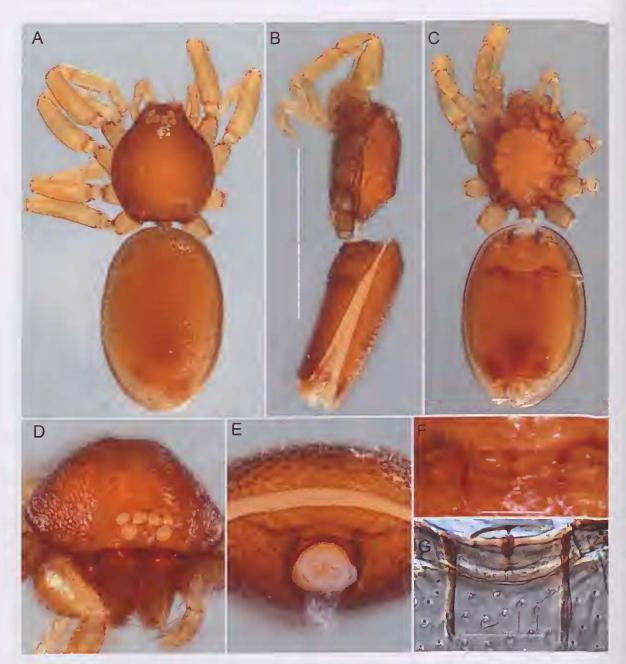


FIG. 135. *Opopaea pannawonica* Baehr and Ott, sp. nov., female (PBI\_OON 23616): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

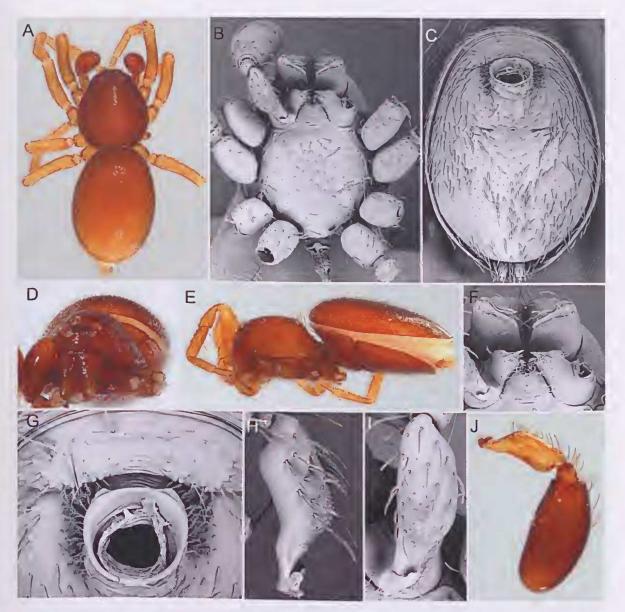


FIG. 136. *Opopaea pilbara* Baehr and Ott, sp. nov., male (PBI\_OON 81875 photo, PBI\_OON 23611 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

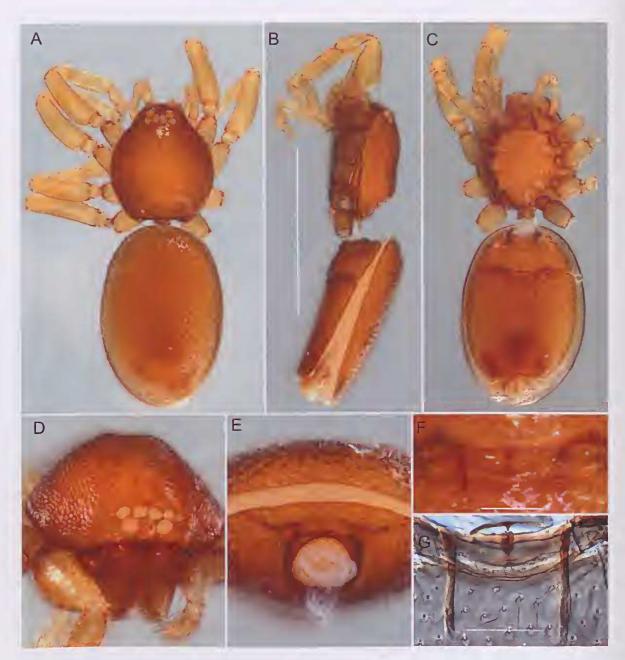


FIG. 135. Opopaea pannawonica Baehr and Ott, sp. nov., female (PBI\_OON 23616): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

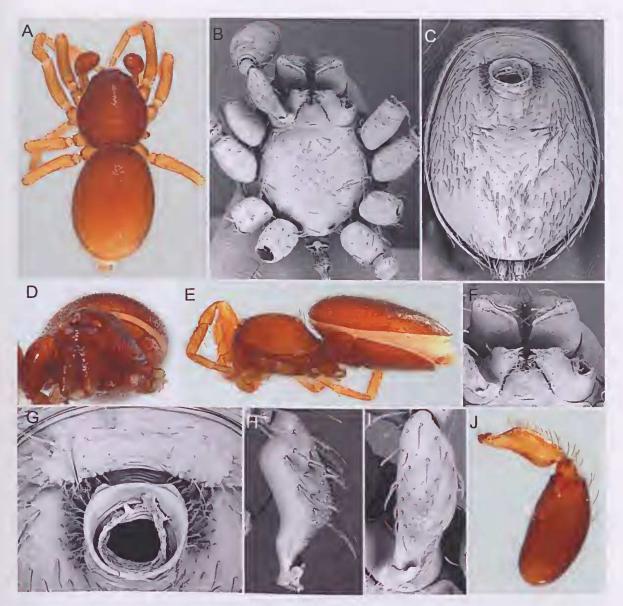


FIG. 136. Opopaea pilbara Baehr and Ott, sp. nov., male (PBI\_OON 81875 photo, PBI\_OON 23611 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

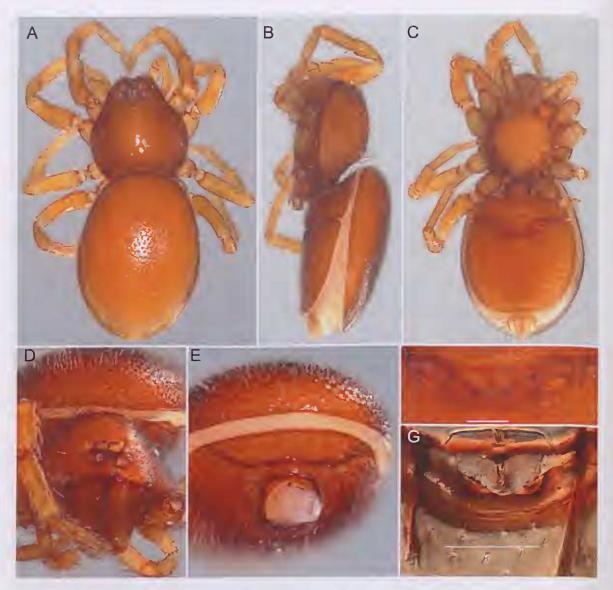


FIG. 137. Opopaea pilbara Baehr and Ott, sp. nov., female (PBI\_OON 23610): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

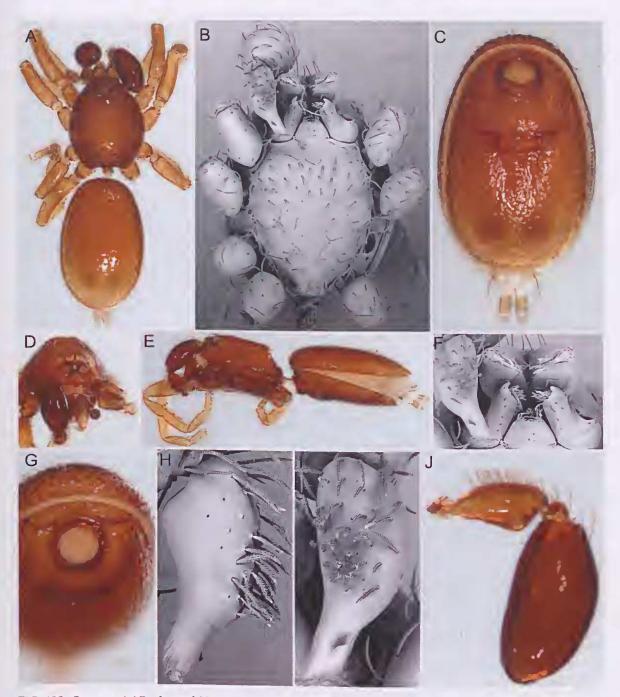


FIG. 138. *Opopaea rixi* Baehr and Harvey, sp. nov., male (PBI\_OON 23633 photo, PBI\_OON 18031 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

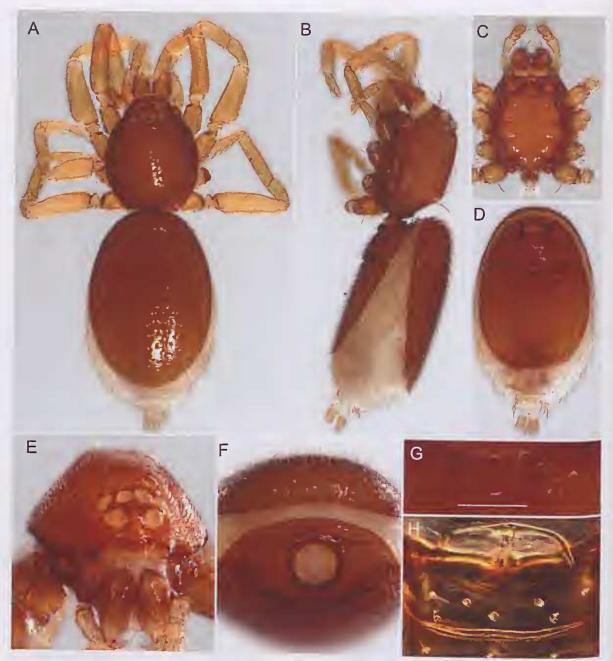


FIG. 139. Opopaea rixi Baehr and Harvey, sp. nov., female (PBI\_OON 23634): A, habitus, dorsal view; B, same, lateral view; C, opisthosoma, ventral view; D, prosoma, ventral view; E, prosoma, anterior view; F, opisthosoma, anterior view; G, female epigyne, ventral view; H, same, dorsal view.

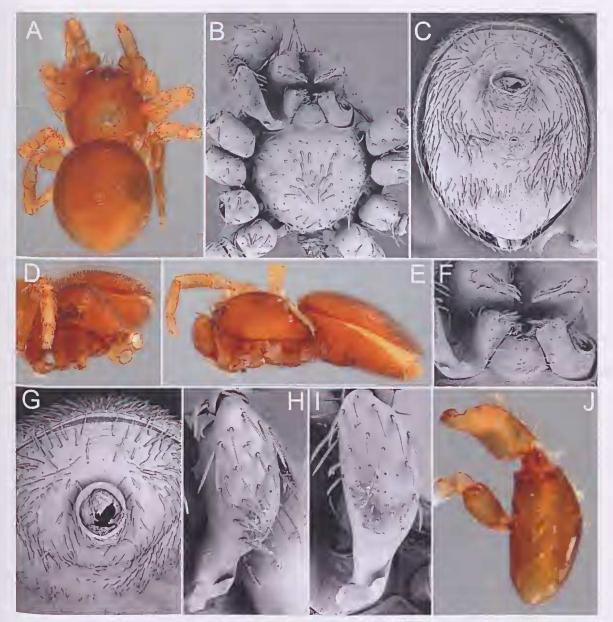


FIG. 140. *Opopaea robusta* Baehr and Ott, sp. nov., male (PBl\_OON 04501 photo, PBI\_OON 23627 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

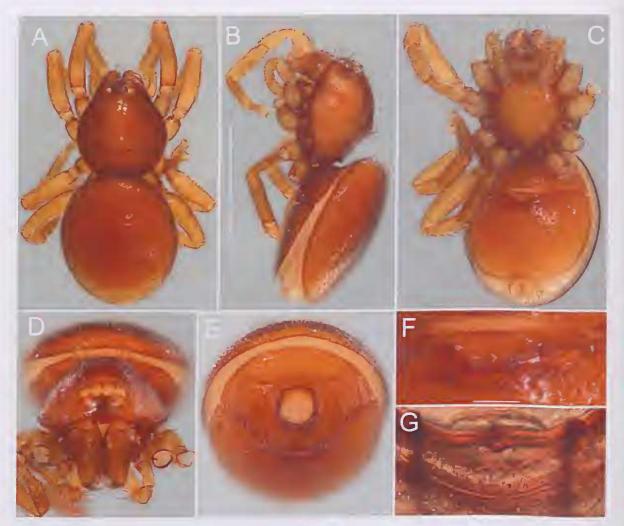


FIG. 141. *Opopaea robusta* Baehr and Ott, sp. nov., female (PBI\_OON 04378): **A**, habitus, dorsal view; **B**, same, lateral view; **C**, same, ventral view; **D**, prosoma, anterior view; **E**, opisthosoma, anterior view; **F**, female epigyne, ventral view; **G**, same, dorsal view.

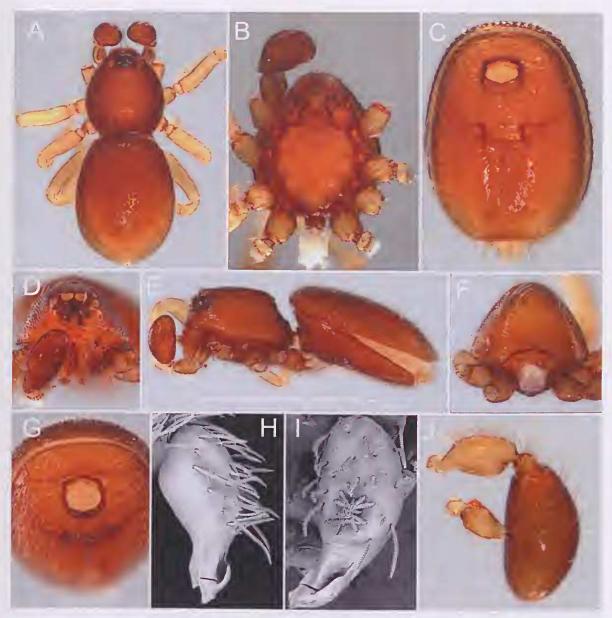


FIG. 142. *Opopaea rugosa* Baehr and Ott, sp. nov., male (PBI\_OON 18059 photo, SEM): **A**, habitus, dorsal view; **B**, prosoma, ventral view; **C**, opisthosoma, ventral view; **D**, prosoma, anterior view; **E**, habitus, lateral view; **F**, prosoma, posterior view; **G**, opisthosoma, anterior view; **H**, male palp, prolateral view; **I**, same, dorsal view; **J**, same, retrolateral view.

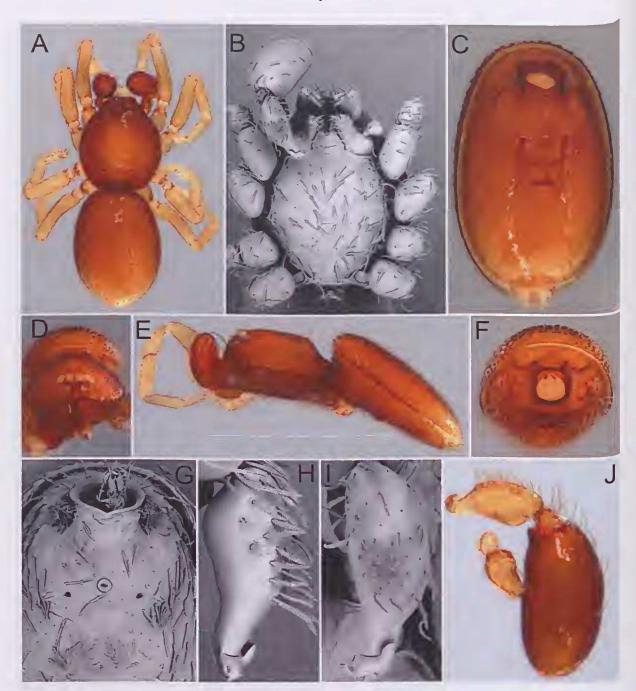


FIG. 145. Opopaea triaugularis Baehr and Harvey, sp. nov., male (PBI\_OON 04698 photo, PBI\_OON 23631 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, prosoma, anterior view; G, Epigastric area, ventral view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.



FIG. 146. Opopaea triangularis Baehr and Harvey, sp. nov., female (PBI\_OON 23619): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

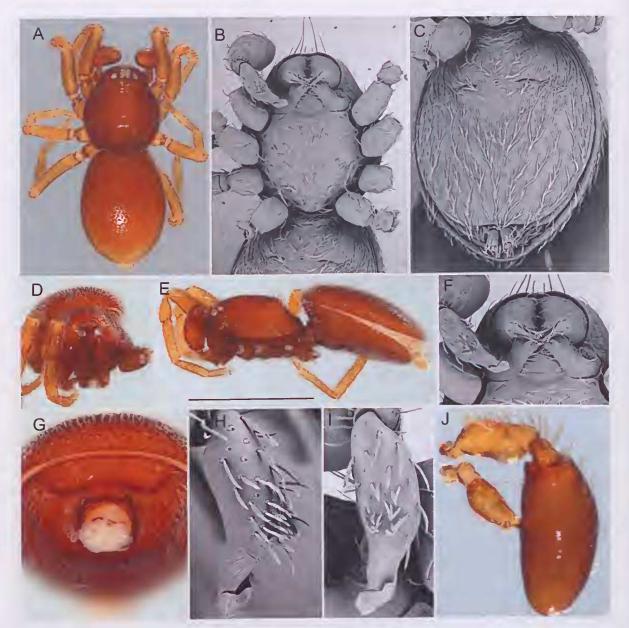


FIG. 147. *Opopaea wheelarra* Baehr and Ott, sp. nov., male (PBI\_OON 04471 photo, PBI\_OON 23611 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.

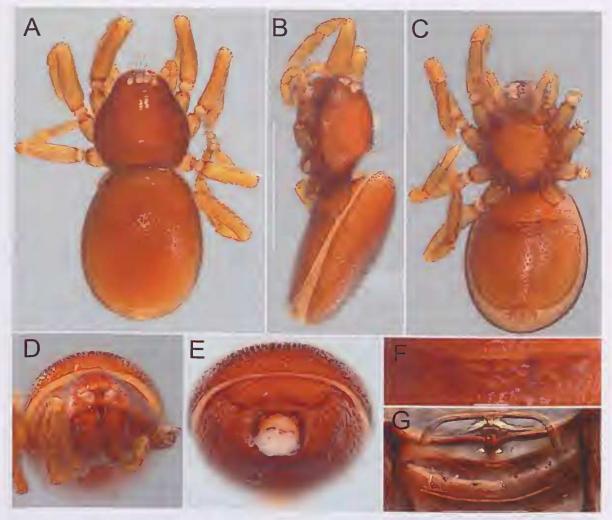


FIG. 148. Opopaea wheelarra Baehr and Ott, sp. nov., female (PBI\_OON 04471): A, habitus, dorsal view; B, same, lateral view; C, same, ventral view; D, prosoma, anterior view; E, opisthosoma, anterior view; F, female epigyne, ventral view; G, same, dorsal view.

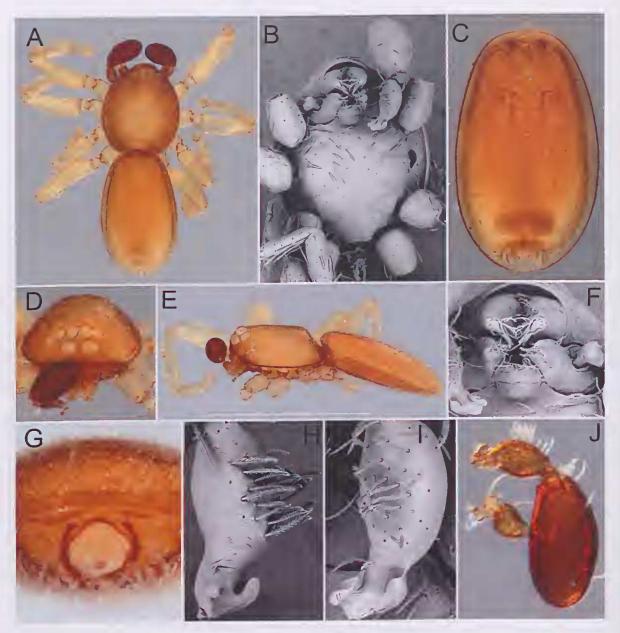


FIG. 149. *Opopaea whim* Baehr and Harvey, sp. nov., male (PBI\_OON 04648 photo, PBI\_OON 04658 SEM): A, habitus, dorsal view; B, prosoma, ventral view; C, opisthosoma, ventral view; D, prosoma, anterior view; E, habitus, lateral view; F, mouthparts, ventral view; G, opisthosoma, anterior view; H, male palp, prolateral view; I, same, dorsal view; J, same, retrolateral view.